



CITY OF DUNDEE

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

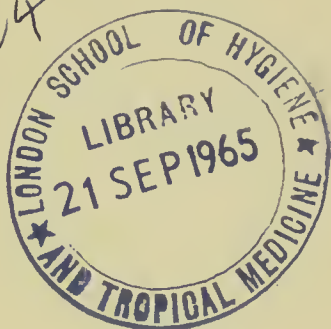
FOR THE

YEAR ENDING 31ST DECEMBER, 1935

DUNDEE

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Public Health Department,

Dundee, July, 1936.

The Lord Provost, Magistrates and
Town Councillors of the City of Dundee.

Gentlemen,

I have the honour to submit the Annual Report of the Public Health Department for the year 1935.

Certain events must be mentioned in this Report although they occurred at the beginning of the present year.

On 6th March, 1936, Councillor Simon G. Fraser died. He was a member of the Town Council for twenty-six years, and in 1912 he was elected Convener of the Public Health Committee, an office which he held continuously until his death. His passing is a great loss to the city, and is felt particularly by all members of the staff of the Public Health Department, all of whom regarded him as a wise counsellor and friend. Mr Fraser became Convener at a time when the outlook on public health matters was very different from what it is to-day, and he played a very large part in developing that outlook, not only in the city, but in the country. The high standard of efficiency which the Public Health Department of Dundee Corporation has reached is without question due to the foresight, energy, enterprise and enthusiasm of Mr Fraser.

On 2nd January, 1936, Mr Robert Mitchell, the Chief Sanitary Inspector, died. He had been a member of the staff of the Sanitary Department for thirty-six years, for the last sixteen of which he was Chief Inspector. The Public Health Department has never had a more industrious and a more painstaking official. He knew every corner of the city, and understood thoroughly the many problems that called for a solution especially in connection with housing, a subject in which he always had a particular interest. His wide knowledge and experience led to his being appointed by the Secretary of State for Scotland a member of the Scottish Housing Advisory Committee, a body established in terms of the Housing (Scotland) Act, 1935, to advise the Department of Health for Scotland on matters connected with housing Acts. Unfortunately he died before the first meeting of the Committee.

Although not a member of the staff of the Public Health Department, I must also refer to the death of Mr Charles Gow, Governor of the East House, which occurred on 4th January, 1936. Mr Gow acted as part-time steward to Maryfield Hospital after the transfer of that Institution to the Corporation in May, 1930. He gave his services willingly and carried them out most efficiently during a very difficult period. His long experience of Maryfield Hospital in its Poor Law days was of considerable value to us, and his death is a severe loss to the Public Health Department as well as to the Public Assistance Department.

The opportunity is taken to thank all my colleagues in the Department and all members of the staff for their loyal co-operation and assistance throughout the year.

I am, Gentlemen,

Your obedient servant,

W. R. Burgess.

Medical Officer of Health.

Summary of Vital Statistics.

The following is a summary of the principal statistics for the years 1933, 1934 and 1935:—

				1933.	1934.	1935.
Population	...	...	...	177,177	177,230	178,157
Number of Deaths (corrected)		...	...	2,577	2,417	2,346
Death-rate per 1,000 Population (corrected)	...			14.5	13.6	13.2
Deaths of Infants under 1 year	...	...		304	246	218
Infantile Death-rate per 1,000 Births		...		98	74	68
Marriage-rate per 1,000 Population	...	...		7.9	8.7	8.9
Number of Births registered (corrected)		...		3,099	3,310	3,195
Birth-rate per 1,000 Population	...	...		17.5	18.7	17.9
Illegitimate Birth-rate per 100 Births		...		8.2	8.2	7.5
Number of Deaths from Pulmonary Tuberculosis				102	95	119
Death-rate per 1,000 from Pulmonary Tuberculosis				.58	.54	.67
Death-rate from all forms of Tuberculosis	...			.84	.80	.89
Death-rate from the Principal Epidemic Diseases				1.03	.72	.40
Deaths from Enteric Fever	1	2	0

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Annual Report—1935

The various death-rates for the year 1935 as shown in the summary on the previous page suggest that the year was an unusually healthy one for the population of Dundee. Perhaps such a conclusion based on death-rates alone cannot be considered as reliable, but while we have accurate information regarding deaths, we have very few records of the incidence of disease. Indeed, the only information available regarding sickness relates to the notifiable infectious diseases. The incidence last year of the epidemic infectious diseases was very low, which fact was probably mainly responsible for that year being an unusually healthy one.

The corrected death-rate from all causes and at all ages was 13.2 per 1,000 population, the lowest rate yet reached in the city. The number of deaths was 2,346. The corresponding figures for the year 1934 were 13.6 per 1,000 with 2,417 deaths. The general death-rate for the whole of Scotland was 13.2 and for the large burghs, taken together, 13.4 per 1,000, so that the Dundee figure may be said to be very satisfactory not only as compared with the previous years, but also as compared with the country generally and with the large towns. It would seem that the decline in the rate is almost, if not entirely, due to the comparative absence of epidemic infectious disease, the death-rate from the principal epidemic diseases being exceedingly low.

Infantile mortality provides another record, the rate being 68 per 1,000 births, the next lowest rate having occurred in 1932 with 72 per 1,000 births. Last year's rate is well below that for the whole of Scotland, namely 78.8, and for the large burghs, which is 76 per 1,000 births. The Dundee rate compares very favourably with those for other towns in Scotland, and is the lowest of the four largest burghs. The following statement, taken from the seventh Annual Report of the Department of Health for Scotland, shows the trend of infantile mortality in the four cities :—

INFANT MORTALITY RATES

Year	Glasgow	Edinburgh	Dundee	Aberdeen
1890,	149	144	208	159
1900,	154	135	177	149
1910,	121	111	169	111
1920,	107	89	131	121
1934,	98	62	74	77
1935,	98	70	68	90

Table XII. in the statistical section of this report details the causes of infant deaths at various ages under one year. When compared with the corresponding table in the annual report for 1934, it is clear that the decline in the infantile mortality which occurred last year is due almost entirely to the fall in the number of deaths from measles and whooping cough, these diseases not being present in epidemic form. It is evident at the time of writing that the infantile mortality during the present year will not be so satisfactory, epidemics of both primary pneumonia and of measles having occurred since January, and caused much havoc among the infant population. While the low rate last year may be said to be largely accidental, there is no doubt that the downward trend is steadily maintained.

The death-rate from all forms of tuberculosis shows a rise as compared with 1934 from .80 to .89 per 1,000 population. This rise is due to an increase in the number of deaths from the pulmonary type from 95 in the former year to 119 for the year under review. The non-pulmonary tuberculosis death-rate fell from .26 to .20 per 1,000 population. The tuberculosis (all forms) death-rate in the whole of Scotland for 1935 was .74 per 1,000 and in the large burghs taken together .88 per 1,000.

There were 305 deaths certified in Dundee as due to malignant disease, giving a rate of 17.12 per 1,000. In 1934, the corresponding figures were 335 and 18.90.

Maternal mortality rose from 5.44 in the year 1934 to 5.63 in 1935.

As already stated, the death-rate from the principal epidemic diseases was very low, being .40 per 1,000 compared with .72 in 1934, and 1.08 in 1933.

There was a definite fall in the birth-rate from 18.7 per 1,000 population in 1934 to 17.9 in 1935. The actual number of births in each of these two years was 3,310 and 3,195 respectively.

In the Annual Report for 1934, this subject was dealt with at considerable length. It is not necessary to go further into the matter except to emphasise once more the fact that adequate domiciliary medical attendance is not available for infants and children, and that even for those persons who are at present entitled to benefits under the National Health Insurance Acts, the services are not sufficient so long as specialists and certain ancillary assistance are not made available to them immediately the need arises. The overlapping which exists in the present regime and the general lack of texture call for the overhauling of the whole health organisation. It is hoped and expected that very definite recommendations with this object in view will be contained in the Report of the Departmental Committee on Scottish Health Services. Action based on any such recommendations cannot be effective for some considerable time, and it is important that any development of the service which may occur meantime should not be permitted to aggravate the problem. Public opinion rightly demands that the midwifery services should be improved in order that maternal morbidity and mortality should be reduced as well as the neonatal and intranatal mortality. In framing schemes to bring about these improvements, care must be taken to make this improved service an integral part of the general health organisation, otherwise its effectiveness will be interfered with seriously.

In May of this year, I submitted a special report containing a survey of the Maternity Services as they exist in Dundee at present, and submitting recommendations which it was thought would remove the defects shown to be present. It was pointed out that normally the medical supervision during the antenatal, intranatal and postnatal periods should be carried out by the doctor in general medical practice. This is a very important provision not only from the point of view of the childbearing woman but also from the point of view of the general health of the community. It would be a serious matter to remove from the province of the general practitioner this class of work. Antenatal, intranatal and postnatal supervision should be given by the same medical attendant. This principle is, I think, generally accepted. It should also be accepted that the medical supervision of the individual from before birth to the end of life should be afforded so far as is possible by the same medical attendant. In my view, that idea should prevail in framing the general health organisation. It does not prevent individuals being passed on to hospitals, clinics, or specialists for a particular purpose. That need not interfere with continuous

supervision and with the responsibility of the general medical practitioner. A completely *ad hoc* maternity services scheme would introduce a gap which would constitute a flaw in the general health scheme, even although the maternity services might be considered to be very efficient. But it is doubtful if such an *ad hoc* maternity services scheme would be efficient irrespective of any effect it might have on the general health organisation. It is impossible to separate midwifery from general medicine. Too often pregnancy complicates an existing disorder or is complicated by a disorder which does not come within the province of the midwife or the obstetrician. To keep the general medical practitioner out of the picture seems to be very bad policy for that reason alone. He should therefore be the responsible individual but working with him should be a midwife with well defined responsibilities who may in certain cases be acting as a midwife but without the full responsibilities usually given to the midwife. He must have at call the services of consultant obstetricians in the home of the patient or at the clinic when these are required during the antenatal, intranatal and postnatal periods, and hospital beds must be available at all stages for patients who require such treatment for medical or domestic reasons. This special report will receive consideration during the present year, but the action will depend on the nature of the expected legislation dealing with maternity services in Scotland.

In speaking of a better maternity service, too much publicity is inclined to be given to maternal mortality as if the reduction of that rate were the sole object of the scheme. While that may be one of the objects, perhaps an even more important object is the birth of a healthy infant, who will have a fair chance of surviving the neonatal period. While the interests of the mother and child during the prenatal and intranatal periods may not always coincide, a healthy pregnancy and labour will usually result in the arrival into the world of an infant able to survive in the new environment. It must be accepted that most of the causes of neonatal deaths are not postnatal in origin but arise during the antenatal and intranatal stages.

The work of the Child Welfare Scheme and the School Medical Services was carried on throughout the year along the usual lines. It is the aim to fuse these two services into one, but the fusion is not yet complete. All the clinic premises are however used by children at all ages, and each member of the central staff of health

visitors is responsible for visiting all children in her district, as well as other cases for which the Department has a statutory responsibility. Every effort is being made to broaden the outlook of the health visitor so that she will understand that her services are available to every household in her district in connection with all health matters whether or not these are the official concern of the Public Health Department. The health visitor is a very important health official, and her importance will steadily increase. While she may not have any direct concern with, say, a non-infectious disease in an adult, she must be prepared to advise, because the ill-health of that adult may have a very important effect on the wellbeing of every member of the family in whom she may have a direct concern. The health visitor is also advised to interest herself in a discreet way in the economic circumstances of the families under her charge, and very often she has been able to give help which has been greatly appreciated. Convinced as we are that closer contact between the general medical practitioner and the health visitor is essential, every opportunity is taken to bring about this contact, and I think that there is no doubt that medical practitioners are beginning to understand the part which the health visitor plays in the general health organisation. That organisation is very complicated. It is difficult to understand by the officials working it. It is more difficult for medical practitioners to understand, and still more so for the general public. I believe that the health visitor's knowledge is enabling the public to make fuller use of the resources of the health department. A simplification of the health organisation is essential, but until that can be brought about, the health visitor must do what she can to see that those people under her charge obtain the sort of help they require at any particular moment.

The reports of Dr Margaret Scott Dickson and Dr A. E. Kidd, included in this volume, detail the work done. Dr Scott Dickson is responsible for the Maternity Services which cover not only the various stages of pregnancy but also the infant up to about two years. Dr Kidd is responsible for the school child and also for the pre-school child from 2 to 5 years. The latter is not yet receiving the attention which it requires, and the strengthening of the organisation in this direction is required. That, however, is gradually being brought about.

The figures contained in the reports of Dr Scott Dickson and Dr Kidd speak for themselves, and show the enormous amount of

work carried out by these medical officers and their staffs. There is no doubt, however, that much of the work done at the various clinics should be done by the general medical practitioner in his consulting room or in the home of the patient. That will only be possible when an adequate domiciliary medical service is made available not only to insured persons but to their wives and dependants and to others in similar economic circumstances. The clinics would then be free to carry out their functions as diagnostic, consultation and educational centres.

In April of this year a special report on the dental side of the School Medical Services was submitted, and the Council agreed to the appointment of an additional surgeon and health visitor as a first step in the development of the dental section of the service.

The blending of the child welfare and school medical services is hampered to some extent by the fact that the report year for the child welfare scheme is the calendar year while that for the school medical services is the scholastic year. This seems unnecessary. It has been the custom to report on the public health service for the year ended 31st December, and it is suggested that the school medical services should fall into line.

The arrangements for the domiciliary medical attendance on the outdoor poor was carried on as usual during the year. The necessitous sick receive medical attention in their homes or at the private consulting rooms of five part-time medical officers appointed for the purpose, who deal with the cases in their particular districts. A certain number of patients are also seen at clinics conducted by these practitioners at the Public Assistance Office. Cases requiring hospital treatment are admitted to the appropriate municipal institution. Medicines required are dispensed by any of five chemists who are chosen each year on a contract basis. The volume of work has been showing a small but steady increase during the past five years. In 1935, there were 1,700 applications for medical relief made by 1,459 males and 241 females on behalf of themselves or their families. These applicants had wives in 1,328 cases and 4,769 dependent children. It seems desirable that special arrangements for the domiciliary attendance on the outdoor poor should be rendered unnecessary by their absorption into an enlarged National Health Insurance Scheme which would cover not only the present insured population and their wives and dependants but all others in a like economic situation.

Hospital policy was dealt with in detail in my report for Hospitals. the year 1934.

Throughout the year under review, considerable progress was made towards the improvement of the structure and staffing of certain of the hospitals.

Maryfield Hospital.—At Maryfield Hospital, work has commenced at the first section of the new nurses' home, and this section should be completed soon after the end of the present year. The accommodation for nurses thereby provided will reduce considerably the difficulties at present existing in carrying out efficiently the work of nursing the patients. It will provide accommodation for between 40 and 50 nurses. Before it is completed, it is hoped that the Council will have taken the first step towards the erection of the second part of the nurses' home. The north block at Maryfield Hospital is now under reconstruction, and before the end of the year the work should be completed, and a maternity unit and children's unit made available to patients.

The alterations to the main block at Maryfield Hospital have not yet been begun, but the plans have been approved, and I understand that the working drawings are now in course of preparation. A central heating system for the whole Institution is to be installed, and a scheme is now being worked out.

The advisability of erecting an ante-natal unit for both in-patients and out-patients at Maryfield Hospital is suggested in the special report on the Dundee Maternity Services, which has already been referred to.

Considerable improvements have been effected in the staffing of Maryfield Hospital. East House inmates are no longer employed in the wards, the work being done by ward maids, who reside outside the Hospital. In April of this year a whole-time steward took up duty. Formerly the Governor of the East House acted as steward to the Hospital.

The visiting medical staff has been added to. It now consists of one surgeon, one obstetrician and gynæcologist, three physicians (one for the children's wards), one ear, nose and throat specialist, one ophthalmic surgeon, one anæsthetist, and one dental surgeon. Besides these, the services of Dr Hunter for

tuberculosis and Dr Keay for venereal disease are available to patients in the Hospital.

Reference was made in the annual report for the year 1934 to the fact that many old people are under treatment in Maryfield Hospital who do not require the continuous skilled medical and surgical attention given to patients there. They would be much happier and much more comfortable in homes provided specially for the purpose. They should be permitted to live in a peaceful atmosphere and in an attractive environment which are not always to be found in hospital wards. The unit proposed to be erected in the grounds of the East House under the James Ramsay Mortification would no doubt provide accommodation for a number of such cases. It seems desirable that the Council should consider the possibility of administering the infirm wards in the East House and the new unit which it is proposed to build there under, say, the Local Government (Scotland) Act instead of the Poor Law (Scotland) Acts. They would still be a function of the Public Assistance Committee although removed from the category of Poor Law institutions. Some time ago, Maryfield Hospital was taken out of the poor law, and none of the Dundee patients treated there is a pauper. From time to time, however, patients are transferred to the infirm wards of the House, and no doubt in future patients would be transferred to the new unit. Under present conditions, patients so transferred become paupers. It should be remembered that many of the patients in the infirm wards pay a substantial proportion of the cost of maintenance as the old age pensions to which many of them are entitled are handed over to the Local Authority. For that reason only, if for no other, it seems a pity that it is possible for these people to be classed as paupers. The whole question of the housing of these old infirm people seems to deserve the special attention of the Council.

The details of the work done at Maryfield Hospital are contained in the report by Dr Macdonald, the Medical Officer, and is included in this volume.

King's Cross Hospital.—Considerable extensions and alterations are contemplated at King's Cross Hospital in terms of a report which I was instructed to prepare in December. The principal object is the erection of a cubicle pavilion with accommodation for approximately 24 patients. The City Architect has been instructed to work out a complete scheme. The cubicle pavilion will include an operating theatre. It will also be neces-

sary to erect a new nurses' home, the present one being required for the accommodation of domestic staff. The heating system will be reconstructed.

It is expected that the whole scheme will be ready for consideration by the Public Health Committee at an early date.

Ashludie Sanatorium.—Only minor changes have taken place in this Institution, and it is unnecessary to mention them here.

The difficulties of providing accommodation for cases of tuberculosis of the non-pulmonary form are commented upon elsewhere in this report.

Westgreen Mental Hospital.—The new kitchen at Westgreen is practically completed and is ready for occupation as soon as certain equipment is obtained.

A commencement has been made with the erection of two huts for the accommodation of staff. Each of these will house twenty nurses, one being for the female staff and the other for the male staff. This is intended as temporary accommodation pending the erection of a permanent nurses' home, the size of which cannot be ascertained until certain other questions relating to the ultimate size of the Institution are answered. These temporary huts have been so designed that they will be available as halls for recreation or other purposes when they are no longer required as bedrooms.

The Council have agreed to erect a hospital pavilion of 60 beds to relieve the overcrowding of patients which exists in the wards at present. The plans for this hospital unit are now in preparation.

A shelter for visitors has been erected at the main entrance.

The new byre for 100 cows erected at Gourdie Farm is now in use. It is proving very satisfactory and has enabled the farm manager to supply all the milk required for the various residential public health and public assistance institutions.

Public Health Institute.—The work carried out at the Institute is described in the reports of Dr Hunter and Dr Keay. Arrangements are being made to use the ward formerly occupied by

male patients suffering from venereal disease for ultra-violet rays, and a staircase is to be constructed between the waiting-room in the tuberculosis section and that ward.

In the course of the year, all the necessary supplies were issued from the Dispensing Section of the Institute, not only to the Tuberculosis Section and the Venereal Diseases Section, but also to the child welfare clinics, school clinics, schools, day nurseries, etc. These supplies consist of the usual medicines, dressings and artificial foods. A large number of prescriptions issued by general medical practitioners for patients receiving domiciliary treatment for tuberculosis were also dispensed. The Dispensing Section is also responsible for the distribution of disinfectants and of insulin.

Mental Deficiency Institutions.—No decision has yet been arrived at regarding the provision of accommodation for mental defectives. Consultations have been carried out with the General Board of Control. The most convenient arrangement would be to obtain the necessary beds at Baldovan Institution. Failing that, it would appear to be necessary for the Council to provide an Institution of their own. It seems inadvisable for Dundee to proceed with the erection of an institution for their own use, but, failing agreement with the authorities of existing institutions, there appears to be no alternative. No doubt a suitable site could be obtained in the neighbourhood of Dundee.

Duncarse Children's Home.—The Public Health Department is not responsible for the administration of this Home, but provides medical attendance on the inmates. Dr R. L. Leask, until lately an Assistant Medical Officer of Health, submitted a report to the Public Assistance Committee on the work which he had done at the Institution throughout the year. He referred to the arrangements which had been made to render available for use the isolation and probationary block which has been standing empty for some years. In an institution like Duncarse, which accommodates children, infectious disease is bound to be introduced from time to time, and an observation and isolation unit is an absolute necessity. The usefulness of Duncarse has been seriously interfered with on several occasions during recent years owing to the occurrence of infectious disease and the lack of adequate facilities for their control. More than once it had to be closed to new inmates, and children who would normally have

been admitted there were accommodated in Maryfield Hospital. Apart from occupying beds which should be reserved for sick children, it is difficult to imagine a more undesirable place for healthy children than a hospital ward. It is hoped that this matter will be considered as urgent and that immediate steps will be taken to make the isolation and probationary block fit for occupation by carrying out the necessary alterations and providing the necessary staff. Duncarse Children's Home is a valuable institution, and everything should be done to see that the accommodation available is in full use.

The Council have recognised the need of providing continuous ^{Epilepsy} institutional treatment of a suitable type to persons resident in Dundee suffering from epilepsy, and therefore made themselves responsible for the maintenance of two such cases in the Bridge of Weir Colony for Epileptics. This practice should be encouraged not only in connection with epilepsy but also in other diseases when treatment in an institution established for the special purpose is considered desirable.

During 1935, 17 new applicants were granted a supply of in- ^{Diabetes and the Supply of Insulin} sulin under the Public Health (Scotland) Amendment Act, 1925. In the course of the year 4 patients ceased using insulin and 4 patients died. There was thus an increase of 9 persons actually receiving insulin. The total number on the register at the end of 1935 was 52.

The total amount of insulin issued was 1,556 bottles of 5 ccs. (100 units each) and 927 bottles of 5 ccs. (200 units each). Syringes and needles were issued to necessitous cases.

The sum of £50 5s 7d was collected from patients who were considered able to contribute towards the cost of the insulin supplied.

The administration of the Blind Persons Act, 1920, was under ^{Blind Persons.} consideration by the Council towards the end of the year, and in January of this year it was agreed that the administration of the Act should be handed over from the Public Assistance Committee to the Public Health Committee on 16th May, 1936. A Sub-Committee was appointed to consider the whole question of the welfare of the blind in Dundee, and that Sub-Committee has arranged for the necessary alterations being made in the scheme

for the administration of functions relating to Poor Law and Public Health. The Sub-Committee are now engaged in revising the scheme made by the Council some years ago in terms of Section 2 (1) of the Blind Persons Act, 1920.

Housing.

The report of the Chief Sanitary Inspector gives details of the proceedings carried out during the year in terms of the Housing (Scotland) Acts, 1925 to 1935. It also contains figures describing the numbers of new houses erected and houses closed each year since the housing campaign began in 1919.

Perhaps the most important step yet taken under the Housing (Scotland) Act, 1935, is the making of the overcrowding survey called for in terms of that Act. The survey was carried out under the supervision of the Medical Officer of Health and the Chief Sanitary Inspector and the results are recorded in full in the latter's annual report and in a special joint report issued on 31st December.

As was expected, a big proportion of the houses in Dundee are overcrowded in terms of the new statutory definition of overcrowding. The actual percentage is 26.82 covering 12,641 families. The overcrowding is most marked in the one and two-roomed houses, the degree of overcrowding in the former being 34.7% and in the latter 35.6%.

The overcrowding report provides very useful information, and should be particularly helpful in framing a housing policy for the city. Although the Public Health and Sanitary Departments are not responsible for framing the housing policy, they carry out a considerable amount of housing work. Generally it may be said that the functions of these Departments include the systematic inspection of the whole city in order to discover houses which are unfit for human habitation and areas which are unhealthy. The provision of new houses is not their direct concern although they may have to advise on such matters as the number of new houses required and the distribution of new houses in the matter of size. Apart from finance, the housing policy must be based on an estimate of the total number of houses which must be built and the rate at which these houses are to be provided. The report referred to should be of considerable assistance in estimating the total number of new houses required. It shows a surplus of two-roomed and a deficiency of larger houses after considering both overcrowding and unfitness. For many reasons, some of which are mentioned

in the report, the figures given must be considered as minimum figures. In my view, the Council should start off by assuming that to solve the housing problem at least 10,000 houses must be provided. These should be distributed roughly in the proportion shown in the deficiency column of the summary table of the report. The Housing Committee at their meeting on 16th January of this year agreed that the first instalment of new houses should consist of 3,000 to be completed before the end of 1938, and distributed in regard to size in the proportion of 25% 3 rooms, 50% 4 rooms and 25% over 4 rooms. It seems desirable that the aim should be to complete the whole work within at least ten years and with that object in view every effort should be made to finish from 1,000 to 1,200 each year. Assuming that ways and means are found to do so, it may be desirable to carry out another overcrowding survey in a few years as a check to progress and to avoid the danger of over-building.

The problem consists therefore mainly in the erection of a sufficient number of new houses. The rate at which these can be provided controls the rate at which unfit houses can be vacated and demolished, and also the rate at which overcrowded families can be transferred to new houses of suitable size. Probably some 3,500 houses will have to be closed or demolished, and some 7,500 families now occupying fit houses will have to be transferred to new houses or possibly to enlarged existing houses.

The figures given in the preceding paragraphs provide a rough measure of the magnitude of the housing problem in Dundee so far as it is possible to assess it at the present time. Actually, there are two elements in the problem, namely, unfitness and overcrowding, but new houses are required to deal with these two elements. The Housing (Scotland) Acts, 1925 to 1935, serve as a code granting the Council the necessary powers, and the Council have to decide how they are to use these powers.

While attempting to tackle the problem as it exists at present, the activities of the appropriate Departments must be directed so that aggravation of the problem will not occur. Thus the overcrowding of new houses must be prevented, and the Council should see that proper precautions are taken with this in view in the case of their own houses. Further, houses that are at present fit for human habitation must be kept fit. This is the routine work of the Sanitary Department.

In attempting to get rid of unfit houses, the tendency in the past has been to weigh up the merits of a particular house or property or it may be of a particular area without perhaps a sufficient reference to the wider district in which the house, property, or area is situated. Procedure has been commenced under clearance resolutions without any clear idea in every case how the area should be used. All of these areas have been small in size, making development on sound lines difficult. No doubt this has been necessary in order to deal with the very worst housing conditions. It seems necessary, however, to tackle larger areas in future, and to handle them in accordance with a comprehensive plan. The various methods provided in the Housing Acts for dealing with houses and areas should be applied after careful study of the whole district in which the houses or areas are situated. It is only after such a thorough examination that decisions can be made regarding the use of parts of a district to widen streets, to provide open spaces, to build new houses, business or industrial premises, and that the Council can decide if they will undertake all these developments or leave some of them to others. It seems necessary to "town plan" very carefully, if not the whole city, certainly the greater part of it so that all concerned will know exactly what use is to be made of each part. One can efficiently apply the various methods of removing slums only after such a complete town planning scheme has been prepared. The Council will purchase only when it wants the ground. A redevelopment area will only be proceeded within any district when the town planning scheme shows (1) That the industrial and social conditions are such that the area should be used to a substantial extent for housing the working classes; and (2) that it is expedient in connection with the provision of housing accommodation for the working classes that the area should be redeveloped as a whole. These conditions must exist before it is permissible to deal with an area as a redevelopment area, and it seems obvious that they can only be ascertained if a town planning scheme has been prepared. If they do not exist, redevelopment in the sense of Section 13 of the 1935 Act is automatically ruled out even although overcrowding, congestion and unfitness are present to the minimum degree required. In such a case, procedure would have to be by clearance area or by demolition order on individual houses. Here again the exact steps to be taken will depend on the use to which the site is to be put. Apart therefore from any other arguments which may be used in favour of a town planning scheme there is no question of the assistance which it would give to the officials of the

Public Health and Sanitary Departments, who have usually to take the initial steps in dealing with unhealthy areas.

Common Lodging-Houses.—Common lodging-houses are usually dealt with under the heading of general sanitation, probably because they are controlled by the Public Health (Scotland) Act, 1897, and not by the Housing Acts. In my view, they should nevertheless be considered as part of the housing problem. While common lodging-houses in the city may conform to the requirements of the Public Health Act and of the bye-laws made thereunder, I think the conditions in many of them could be improved. A special report on all the common lodging-houses in the city by the Chief Sanitary Inspector would assist the Committee to decide on this matter.

The incidence of infectious diseases was very low during the year 1935: altogether 3,910 cases were notified or otherwise intimated, compared with 6,366 during 1934. The main decreases were in the incidence of measles and scarlet fever. Comments are made on the several infections in the following paragraphs, and the totals are shown in the statistical section of the report.

The number of cases intimated to the department in 1935 was 216, and of these 68 received hospital treatment. There were 13 deaths, all among children under 5 years of age. 179 of the cases were intimated in the first quarter of the year, and 37 cases during the remaining three-quarters. In 1934 there were 2,149 intimations. The comparative absence of measles in 1935 is likely to be followed by a fairly heavy epidemic in the present year, as this is a disease which makes itself manifest on alternate years.

The whooping cough intimations remained much the same in the preceding year. The figures were 486 and 499 respectively. 85 cases received hospital treatment, and there were 12 deaths—7 under 1 year, 4 between 1 and 5 years, and 1 over 5 years. The disease was fairly prevalent during the first five months of the year, when 403 cases were intimated.

Ten cases of whooping cough occurred during the spring, in the nursery section of a children's home. The first three cases were discovered in January, and subsequently thirty contacts received a course of prophylactic whooping cough vaccine. Two of these contacts exhibited signs of whooping cough before completing the course and four after completion. One other unpro-

tected child developed the disease. The illness in all the fully vaccinated cases was very mild, while among the unprotected and partially vaccinated cases the mild and severe were equal in number. The results of using whooping cough vaccine pointed definitely to modifications in severity in those who developed the disease, but the relatively small numbers and the absence of controls made it impossible to state definitely that the vaccine afforded any protection against an attack. Nevertheless, one felt that the number of cases would have been considerably greater had it not been employed.

**Primary
Pneumonia.**

The number of cases of primary pneumonia fell from 617 in 1934 to 417 in 1935. 242 cases received institutional treatment in Dundee Royal Infirmary, Maryfield Hospital and King's Cross Hospital.

**Influenzal
Pneumonia.**

31 cases were notified in 1935 against 24 in 1934. None of the 1935 cases received institutional treatment.

**Scarlet
Fever.**

845 cases of scarlet fever were notified during 1935 compared with 1,188 in 1934. The disease was generally of a mild character, and only one child aged 8 years died. The certified cause of the death was septic scarlet fever complicated with broncho pneumonia. There were no localised outbreaks in schools or attributable to milk supplies.

The work done in the way of artificial immunisation was on the usual lines, as is borne out by the following summary :—

Age Group	Dick positive	Dick positive and immunised	Dick negative	Total
Under 5 years,	15	53	42	110
5-15 years,	3	59	118	180
Over 15 years,	2	8	40	50
	—	—	—	—
Totals,	20	120	200	340

**Smallpox and
Chickenpox.**

The City remained free of smallpox during the year. Several persons who had been in contact with the disease on board ship were reported in the course of the year, and these were all kept under observation,

765 cases of chickenpox were visited in the course of the year. 39 cases received hospital treatment—8 on account of intercurrent diseases, and 31 cases were removed from institutions.

The incidence of diphtheria during 1935 was the highest recorded since 1928. Altogether there were 459 cases notified, and of these 426 were admitted to hospital for treatment. The corresponding figures for 1934 were 343 cases and 298 removals to hospital. The type of the disease during 1935 was more virulent, particularly during the months of August and September. There were 16 deaths—6 under 5 years; 7 between 5 and 10 years; 2 between 10 and 15 years, and one over 15 years. 14 of the deaths occurred in hospital and 2 occurred at home. The Senior Resident Medical Officer at King's Cross Hospital deals with certain aspects of this disease and for fuller information reference should be made to that section of the report.

In the course of the year 1,445,000 units of diphtheria anti-toxin were issued for therapeutic and prophylactic purposes.

Alterations had to be made in the arrangements for the issue of diphtheria anti-toxin consequent on the closing of the Sub-Police Offices, except Broughty Ferry, and to the introduction of Police Boxes. The arrangements now in operation are that supplies may be obtained at the Central Public Health Office, during office hours and at the Central Police Office, Broughty Ferry Police Station and King's Cross Hospital at any hour of the day or night.

The work in connection with active immunisation against diphtheria showed an increase as compared with 1934. The technique of active immunisation has been very much simplified by the introduction of the single dose method, and this method was practised in Dundee during 1935. During the last quarter of the year medical practitioners were informed that arrangements had been made for supplying vials of single dose diphtheria toxoid alum-precipitated at the actual cost price to the department for patients who could afford to pay for the treatment. The vials are issued to doctors free of charge for persons in necessitous circumstances and, in addition, a clinic is held every Friday at King's Cross Hospital to have the necessary work performed by the department's medical officers for such persons.

Altogether 366 persons were dealt with by the Public Health Department. 123 were found to be Schick negative; 21 were

Schick tested and received three immunising doses; 7 received three immunising doses without previous testing; 68 were Schick tested and subsequently received one single dose of diphtheria toxoid alum-precipitated; and 137 received single doses without previous testing. In addition to these figures, 145 single doses were issued to medical practitioners for use with private patients. During the year there were 10 defaulters, one was Schick tested and failed to return; 7 were tested and received one immunising dose; 2 were tested and received 2 doses.

Typhus Fever.

No cases of typhus fever were notified during the year.

Enteric Fever

Five cases were notified during 1935, and of these four were treated in hospital and one at home. The diagnosis was accepted in four cases—2 as typhoid fever and 2 as para-typhoid fever. The other case (aged 66) died in hospital the day following admission, and the certified cause of death was myocardial degeneration: influenza. Three of the accepted cases were treated in hospital and one at home. The source of infection was not definitely established, but the home treated case was on holiday in Dundee, and there was a history of her having been ill a fortnight previous to leaving her own home.

There were no deaths.

In August the department was informed of 53 persons residing in Dundee who had been in contact with this disease on board the S.S. Athenia. All the contacts were kept under close observation, and no cases arose from this source.

**Cerebro-Spinal
Fever.**

There were 11 notifications of this disease received during the year as compared with 21 in 1934. All of the cases were treated in hospital. The diagnosis in five cases was not accepted—the ultimate diagnoses being measles; septic meningitis from otitis media; gastro-enteritis; convulsions; and acute encephalitis. Two deaths, in infants, were certified as due to meningococcal meningitis.

Erysipelas.

154 cases were notified in the course of the year, and of these 67 received hospital treatment. There were 7 deaths. The corresponding figures for 1934 were 206 cases, 87 hospital treated cases and 4 deaths.

Only 16 cases of dysentery were notified during 1935 against 45 in the previous year. The diagnosis in 2 cases was not accepted—in one no apparent disease was found and in the other the accepted diagnosis was mucous colitis. 10 of the accepted cases occurred in institutions, and five of these cases comprised a little outbreak in a children's ward. The sources of infection were not established. The age groups of the accepted cases were:—Under 1 year, 2 cases; between 1 and 5 years 6; between 5 and 10, 4; and there were 2 adults aged 22 and 52 years. No deaths occurred from the disease. Dysentery.

One case of anthrax was intimated in the course of the year. The diagnosis was confirmed bacteriologically. Anthrax.

The number of cases notified in 1935 was 56 as compared with 81 in 1934. 6 cases received hospital treatment. In no case was there any impairment of vision. Ophthalmia Neonatorum.

There were 21 cases of puerperal fever and 36 cases of puerperal pyrexia notified in the course of the year, and of these 50 cases received hospital treatment. The combined notifications for 1934 numbered 87. Puerperal Fever and Puerperal Pyrexia.

These conditions are dealt with fully by the Deputy Medical Officer (Maternity Services) and for full details reference should be made to that section of the report.

The only other diseases notified in the course of the year were 4 cases of recurring malaria and 2 of infantile paralysis. Other Infectious Disease.

Dr D. M. Keay, the Special Medical Officer, Venereal Diseases Scheme, submits in his report full details of the work done throughout the year. The numbers of new cases and of attendances both show increases, but these are in all probability accidental. Nothing occurred during the year calling for special attention. The women's section of the Scheme is now in charge of Dr Jean Finnigan, who succeeded Dr Alice Mitchell. Venereal Diseases Scheme.

Reference should be made to the reports by Dr J. H. Hunter on the Tuberculosis Scheme and by Dr Gilbert Walker on Ashludie Sanatorium included in this volume. Tuberculosis Scheme.

The Institutions forming the Dundee Tuberculosis Scheme are the Tuberculosis Section of the Public Health Institute and

Ashludie Sanatorium. A few patients suffering from tuberculosis are sometimes under treatment at Maryfield Hospital. Apart from these Institutions, which are under the direct control of the Public Health Department, the Council pay for the cost of maintenance of some 30 beds in Sidlaw Sanatorium, and occasionally patients are sent to institutions at a greater distance in order to obtain special treatment or training available there. At the moment, one Dundee patient is being trained at the British Legion Training Colony at Preston Hall, near Maidstone, and another, a child suffering from spinal tuberculosis, is being maintained by the Council in the Princess Margaret Rose Hospital for Crippled Children, Fairmilehead, Edinburgh. The idea of using other institutions should be encouraged, particularly when special treatment of any sort is required which can more efficiently be carried out in hospitals other than those directly maintained by the Corporation.

Dr Hunter is finding difficulty in accommodating in institutions adults suffering from the non-pulmonary forms of tuberculosis. It must be noted that a case of spinal disease, for example, should occupy a bed in a sanatorium for a period of three years. This has a serious effect on the number of beds in Ashludie. When the extensions at Ashludie Sanatorium were under consideration some years ago, it was recommended that 90 beds should be provided, but this number was reduced to 60. Any extensions would involve not only the erection of a new pavilion but also the enlarging of the nurses' home. It seems desirable that the Council should consider co-operating with the County of Angus in providing institutional accommodation for cases of tuberculosis. Meantime, Noranside Sanatorium provides for county cases and Ashludie Sanatorium accommodates those residing in Dundee. These two Institutions together might more efficiently meet the needs of the combined areas. Ashludie Sanatorium, being provided with an operating theatre, X-ray plant, and plaster room, could deal with patients from both the town and county requiring the resources of an institution so equipped, while Noranside Sanatorium could accommodate patients from both these areas who do not require such special treatment. This possibility should be explored before considering any addition to Ashludie.

Note should be taken of the remarks of Dr Gilbert Walker that too many patients are admitted to Ashludie Sanatorium at a stage when curative treatment is not likely to be successful. The

figures he submits speak for themselves. He says, "Of 111 pulmonary cases admitted for the first time, 15 were suitable for active treatment directed against the local lesion, 15 were not requiring such treatment, and 81 were unsuitable for active treatment on account of the type or extent of the lung disease."

The visiting surgeon attends Ashludie Sanatorium on a fee-paying basis. He should now become a part-time member of the permanent staff, thus ensuring the more continued supervision of cases calling for surgical attention.

A beginning has been made in the giving of special consideration to the housing of families in which there is a member suffering from tuberculosis, and the City Factor keeps a special list of such families in order that they may be given particular consideration in the allocation of houses. In assessing the overcrowding of tuberculous families, and in providing them with new houses, the calculation should be made on the basis that the tuberculous patient should have a room to himself. Thus, a family of six persons, one of whom is a notified case of tuberculosis, should be given a house of at least four rooms. One of these should be set aside for the patient and the other five members of the family should occupy the other three rooms. Encouragement should be given to ensure that the tuberculous patient will occupy a room by himself by letting the family have a four-roomed house at the rent of a three-roomed house.

The suggestion contained in Dr Walker's report that the after care of bone and joint cases who are discharged after a course of sanatorium treatment will require consideration is worthy of note. He suggests that it is advisable that they should attend an outpatient clinic where facilities for plaster work and consultation with a surgeon are available. At present, patients are asked to attend at Ashludie Sanatorium for removal of plasters.

Reference should be made to the report of the Chief Sanitary Inspector for particulars of the inspections and examinations under the statutes relating to food supply. The work of the Superintendent of the Slaughterhouse in the application of the Public Health (Meat) Regulations (Scotland), 1932, will be found detailed in the statistical section of this report.

No recognised outbreaks of food poisoning occurred in the city during 1935.

Samples of milk to the number of 79 were taken in shops or dairy premises or in the course of transit to consumers and were submitted for bacteriological examination. When these proved to be unsatisfactory, the supplier was informed, and appropriate steps taken to improve the measures employed in the production and handling of the milk.

There were examined 15 samples of milk from tuberculin tested herds, 8 sold as " Certified " milk, and the remainder as " Grade A.(T.T.)." All but one sample of the latter grade came up to the prescribed standard of cleanliness and all gave negative results in the special tests for living tubercle bacilli.

Pasteurised milk was sampled and submitted for examination on 16 occasions, and 3 (18.8%) failed to reach the standard prescribed for such milk.

There were 48 samples of ordinary sweet milk examined, and 25 (52.1%) reached a satisfactory standard. Sixteen (33.3%) samples were of doubtful cleanliness and the remaining 7 (14.6%) were definitely dirty bacteriologically. Special tests for the presence of living tubercle bacilli were carried out on 16 of these samples of sweet milk with only one positive result. This was a milk in the third group which showed other bacteriological evidence of contamination.

These particulars show some improvement over those of the previous year. Possibly some greater degree of care is being exercised in the production and handling of our milk supplies, but the number of samples is so small that no conclusions may justifiably be drawn. There is no reason why all dairymen should not supply milk conforming to the standards of cleanliness laid down for " Grade A " milk in the Milk (Special Designations) Order (Scotland) 1930.

The bacteriological work done on behalf of the Department is detailed by Professor Tulloch in his section of this report. The number of examinations increased to 12,358 from 11,737 in 1934. There are included in the total reports on 102 samples of milk examined in collaboration with the Scottish Milk Marketing Board.

It will be noted that since the special arrangements were made by the Council with the University Court in 1926, the volume of work has steadily increased so that the latest figures show 3,639 more examinations in the year. A further increase is inevitable when the new Milk (Special Designations) Order comes into operation. The arrangements work admirably and we would again record our appreciation of the invaluable services and co-operation of Professor Tulloch and his staff.

Reference should be made to Tables XXXVII, XXXVIII and XXXIX for details concerning the shipping activities at the port of Dundee for the year 1935. There was a slight reduction as compared with the previous year in the number of ships, foreign-going and coastal, which visited Dundee and in their total tonnage. Nevertheless, the number of ships arriving from infected ports abroad or with suspicious illness on board, and so requiring medical inspection was the same as in 1934, namely, 124. Of these only ten came direct from foreign ports, the remainder having already touched at one or more home ports.

One case of measles and one of malaria were notified on arrival, but neither was admitted to hospital. Several cases of venereal disease occurring in members of ships' crews were referred to the treatment centre as outpatients.

Thirty-six deratisation exemption certificates were granted in 1935. This is the highest number so far issued in any one year. No deratisation certificates were granted, the reason being that Dundee is seldom a terminal port for foreign-going vessels, and, as previously pointed out, it is more satisfactory in the circumstances to allow such ships to undergo deratisation measures at their terminal ports after complete discharges of cargo.

The working of the Regulations continues to be carried through smoothly, thanks to the able assistance of the Chief Sanitary Inspector and his staff, and to the willing co-operation of the Customs officials, the Tay pilots and, not least, the ships' officers themselves.

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TABLE III.

Return Showing the Causes of Death (Corrected for Transfers) at the Different Age periods during 1885:—

CAUSE OF DEATH.	ALL AGES.					AGE.										85 & Over
	Total.	Males.	Females.	—1	1—	5—	10—	15—	25—	35—	45—	55—	65—	75—	Over	
Typhoid Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	13	8	5	3	10	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	12	5	7	7	4	1	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	16	7	9	1	5	7	1	2	...	...	...	...	...	...	...	...
Influenza ...	18	9	9	...	...	...	...	1	...	2	2	2	5	6	...	...
Cerebro-Spinal Fever ...	2	2	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Other Epidemic Diseases ...	9	1	8	...	...	...	...	...	...	1	...	3	3	1	...	...
Tuberculosis of Respiratory System ...	119	65	54	...	2	...	2	24	23	31	18	9	7	3	...	...
Other Tuberculous Diseases ...	39	24	15	3	9	9	5	6	1	2	2	1	...	...	...	...
Cancer, Malignant Disease ...	305	126	179	...	...	...	...	6	9	19	39	84	92	53	...	...
Diabetes Mellitus... ..	23	8	15	...	...	...	1	1	...	2	1	5	8	5	...	...
Diseases of Nervous System ...	272	126	146	9	2	...	...	4	7	11	17	56	85	68	...	...
Diseases of Circulatory System ...	612	225	387	...	1	...	1	4	12	19	43	105	182	206	...	...
Bronchitis ...	106	45	61	6	1	...	...	1	...	3	6	14	23	39	...	...
Pneumonia (all forms) ...	152	86	66	35	26	...	1	6	8	10	14	14	27	10	...	...
Other Respiratory Diseases ...	32	13	19	...	3	...	...	1	1	...	2	6	8	11	...	...
Diarrhoea, etc. (all ages) ...	22	13	9	15	4	...	...	...	...	...	...	...	2	1	...	...
Appendicitis ...	28	16	12	...	...	2	1	3	4	4	5	6	1	2	...	...
Other Digestive Diseases ...	66	32	34	1	...	1	...	...	3	8	6	19	19	8	...	...
Acute and Chronic Nephritis ...	42	24	18	...	...	...	...	1	1	4	11	10	7	7	...	...
Other Diseases of Genito-Urinary System ...	34	26	8	2	1	...	...	...	3	1	1	5	13	10	...	...
Puerperal Sepsis ...	4	...	4	...	...	...	...	...	3	1	...	...	...	...	...	...
Other Puerperal Causes ...	14	...	14	...	...	...	...	4	7	3	...	...	...	...	...	...
Congenital Debility, Premature Birth, Malformations, etc. ...	127	87	40	125	1	1	...	...	...	...	...	...	...	...	...	...
Old Age ...	76	25	51	...	...	...	...	...	...	...	...	...	10	42	...	24
Violent Deaths ...	117	71	46	4	4	5	4	6	9	12	12	25	20	15	...	3
All other Causes ...	85	33	52	6	2	4	4	3	6	6	6	14	19	13	...	2
All Causes ...	2346	1077	1269	218	77	31	20	73	97	139	185	374	531	501	...	100

TABLE IV.

Death Rates at various age-periods (from all causes)
each year.

1931-1935.

Ages. Periods.	1931		1932		1933		1934		1935	
	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.
All ages	2445	13.9	2444	13.8	2577	14.5	2417	13.6	2346	13.2
0-5 years	437	28.9	367	24.1	433	28.4	370	24.3	295	19.3
5-10 ..	44	2.7	37	2.3	36	2.2	29	1.8	31	1.9
10-15 ..	17	1.2	23	1.6	34	2.4	32	2.3	20	1.4
15-25 ..	91	2.9	77	2.5	80	2.6	78	2.5	73	2.3
25-35 ..	125	4.6	102	3.7	109	4.0	91	3.3	97	3.5
35-45 ..	127	5.7	145	6.5	135	6.0	152	6.8	139	6.2
45-55 ..	212	10.7	198	9.9	222	11.1	198	9.9	185	9.2
55-65 ..	371	22.1	404	23.9	413	24.4	403	23.8	374	22.0
65-75 ..	526	54.2	569	58.3	571	58.4	548	56.0	531	54.0
75-85 ..	394	124.6	415	130.7	443	139.2	405	127.3	501	156.6
85 and over	101	273.0	107	288.4	101	270.8	111	297.6	100	266.7

TABLE V.

Death Rate (from all causes) each month during the years
1931-1935.

(From Registrar General's monthly returns.)

Month.	1931	1932	1933	1934	1935
January ...	17.4	13.1	29.0	15.5	16.4
February ..	17.0	15.2	23.1	14.4	16.0
March ...	20.7	15.5	14.9	13.1	15.5
April...	17.9	17.0	12.3	14.9	13.8
May ...	15.2	14.6	12.5	13.3	13.6
June...	12.5	13.3	11.7	13.0	10.7
July ...	10.8	11.4	9.7	13.1	12.6
August ...	10.8	12.3	10.5	11.7	10.6
September ...	10.4	12.4	13.2	10.9	11.3
October ...	9.7	12.5	12.5	13.5	10.8
November ...	14.1	13.2	11.3	14.3	13.3
December ...	15.2	15.3	14.0	16.1	14.3

TABLE VI.

Death-rate (from all causes) in various Wards each year since 1920.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	15.8	16.2	16.7	16.9	15.1	13.6	18.1	14.6	15.2	14.1	10.2
1921	15.8	15.2	16.5	15.2	15.3	13.8	17.4	14.2	16.9	13.5	12.6
1922	16.7	16.0	17.0	18.1	15.5	14.4	18.1	15.0	18.1	15.3	14.0
1923	14.7	15.0	14.0	14.8	14.0	12.8	16.4	15.0	15.4	14.3	12.1
1924	16.4	15.7	16.6	17.2	14.8	13.5	18.6	16.5	17.6	16.6	13.4
1925	16.7	17.8	15.3	18.4	15.9	15.3	16.8	15.2	17.6	18.6	12.8
1926	14.8	15.7	15.5	16.7	14.0	12.5	14.8	14.5	15.5	14.1	13.2
1927	16.9	16.9	17.9	19.4	15.7	15.2	17.6	16.3	16.6	18.0	12.8
1928	15.1	16.6	15.2	17.3	13.0	13.9	13.6	14.8	14.0	15.8	11.8
1929	16.0	16.1	15.7	17.8	14.2	13.6	14.4	16.1	16.9	16.1	12.9
1930	16.0	17.3	14.0	16.2	13.0	15.3	16.4	16.1	16.1	16.3	12.8
1931	13.9	12.4	15.6	13.5	14.1	13.2	14.1	12.7	14.2	14.7	11.2
1932	13.8	12.7	14.4	12.6	12.9	12.6	15.5	11.7	15.8	14.6	13.1
1933	14.5	11.8	13.6	14.7	13.6	13.6	15.1	14.7	14.8	14.7	13.1
1934	13.6	12.9	14.3	15.8	13.0	12.1	10.9	12.8	14.6	12.1	14.6
1935	13.2	10.1	14.2	13.3	12.3	12.0	11.2	14.2	12.3	14.0	13.2

TABLE VII.

Birth-rate in various Wards each year since 1920.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	27.4	29.3	27.4	29.3	24.6	26.7	28.9	28.0	30.1	27.0	21.0
1921	26.5	27.9	27.7	25.2	25.1	26.8	29.3	24.9	32.3	24.1	17.8
1922	24.6	27.2	24.6	24.6	22.5	21.1	27.5	24.6	28.3	25.1	19.2
1923	24.6	27.7	24.6	26.0	21.8	22.3	27.7	25.8	28.5	24.0	13.6
1924	22.6	23.1	21.8	25.5	20.8	21.3	24.7	20.1	26.9	23.7	14.0
1925	21.8	23.3	19.9	22.2	21.7	20.2	24.1	22.1	25.0	22.1	14.4
1926	21.9	24.7	23.2	26.5	19.6	18.9	25.1	20.3	24.2	23.4	10.9
1927	20.4	24.6	20.6	25.0	18.1	18.5	22.4	20.1	22.2	18.9	11.6
1928	20.3	25.5	19.4	23.1	18.2	18.3	22.0	20.6	21.9	18.9	15.1
1929	20.9	25.3	17.6	25.0	16.7	20.3	22.9	20.0	23.7	21.6	12.9
1930	21.1	25.6	18.4	24.2	18.7	21.5	21.6	20.8	21.4	22.0	14.0
1931	19.5	21.0	15.4	22.6	18.3	17.2	23.5	15.8	22.5	22.1	15.0
1932	18.5	18.3	17.1	23.2	15.5	18.5	23.1	17.2	18.6	18.6	13.2
1933	17.5	17.9	16.4	20.2	14.9	17.2	20.0	18.7	17.1	18.2	10.9
1934	18.7	14.3	21.2	19.8	13.5	20.2	22.0	21.3	19.9	17.2	10.8
1935	17.9	19.1	16.3	20.5	15.3	17.2	18.6	19.7	18.8	18.3	11.8

TABLE VIII.

Infantile Death-rate (per 1,000 births) in various Wards each year since 1920.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	131	131	153	150	142	141	150	87	131	133	62
1921	114	130	124	103	101	109	130	131	114	96	99
1922	109	81	101	136	121	109	115	99	125	98	76
1923	98	89	79	121	76	119	121	78	88	92	74
1924	120	104	144	137	121	112	133	108	96	136	71
1925	126	156	128	162	124	118	119	85	150	123	57
1926	103	114	75	110	94	96	100	100	132	93	66
1927	138	121	160	127	137	139	175	135	140	130	62
1928	102	93	126	82	91	103	96	79	111	127	65
1929	102	91	101	116	80	124	80	101	119	87	86
1930	113	101	101	117	109	92	135	124	113	135	60
1931	92	87	94	86	75	75	113	88	112	116	19
1932	72	52	54	65	44	63	100	70	101	89	42
1933	98	92	123	101	76	116	121	81	85	88	51
1934	74	53	55	94	101	79	60	73	87	72	34
1935	68	61	87	73	48	74	62	56	55	82	63

TABLE IX.

Death-rate in various Wards each year since 1920 from principal Epidemic Diseases.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	1.05	1.15	.90	1.18	.96	.93	1.95	.78	.89	1.09	.34
1921	1.09	1.00	1.15	1.04	.90	.93	1.56	1.37	1.24	1.04	.87
1922	.80	1.09	.72	.66	.67	.95	1.03	.89	.84	.43	.54
1923	1.17	1.65	.97	1.03	.77	1.00	1.48	1.29	1.75	1.12	.36
1924	1.69	1.51	2.42	1.93	1.54	1.48	2.67	1.45	1.59	1.71	.86
1925	1.70	1.58	1.60	2.49	1.27	.57	.90	.82	1.21	.37	.27
1926	.79	.96	.72	1.24	.79	1.60	1.69	1.82	2.21	1.70	.45
1927	1.43	2.16	1.25	2.32	1.45	1.13	1.44	1.19	.93	1.78	.54
1928	.65	1.08	.55	.67	.47	.79	.66	.43	.93	.47	.09
1929	.38	.35	.40	.57	.37	.36	.46	.11	.48	.38	.09
1930	.78	.63	.41	.95	.64	.63	1.03	.39	1.56	.97	.18
1931	.84	.89	.76	.48	.75	.56	1.28	.31	1.37	1.46	.47
1932	.68	.47	.68	.42	.69	.68	.98	.45	1.05	.83	.46
1933	1.08	.94	1.26	1.80	1.14	.92	1.15	.98	.52	1.14	1.30
1934	.72	.41	.76	.90	.63	.48	.81	.67	1.04	.88	.65
1935	.40	.23	.50	.60	.28	.40	.34	.31	.26	.51	.28

NOTE.—Figures are for 18 Infectious Diseases (excluding Infantile Diarrhoea).

TABLE X.

Pulmonary Tuberculosis Death-rate in various Wards each year since 1920.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	.99	.90	1.35	1.29	.81	.81	1.21	.83	.93	.86	.51
1921	1.00	1.12	1.23	1.04	.99	.80	1.38	.85	1.13	.74	.56
1922	.93	.54	1.12	.95	.87	1.17	1.18	.72	1.16	.92	.63
1923	.93	1.24	1.05	1.15	.82	.69	1.08	.89	1.27	.93	.45
1924	.85	1.30	.56	.54	.92	.65	1.13	1.00	.95	.88	.45
1925	.87	.89	.80	1.12	.74	.80	1.12	.66	.79	1.06	.55
1926	.81	.96	.79	.87	.32	.93	.56	.77	.95	1.17	.54
1927	.99	1.35	.86	1.10	.57	.96	.77	.76	.78	1.20	.45
1928	.80	.74	.47	.93	1.09	1.00	.66	.65	.83	.63	.54
1929	.78	.56	.81	.94	.64	.54	.91	.62	1.07	1.08	.55
1930	.76	1.05	.73	.70	.48	.90	.46	1.18	.91	.70	.09
1931	.73	.53	.68	.79	.69	.64	.81	.98	.79	.68	.28
1932	.61	.65	.68	.54	.63	.60	.40	.31	1.36	.52	.09
1933	.58	.29	.59	.48	.63	.60	.63	.36	1.10	.52	.46
1934	.54	.53	.25	.60	.57	.44	.58	.36	.99	.41	.65
1935	.67	.82	.67	.78	.57	.60	.40	.75	.73	.93	—

TABLE XI.

Tuberculosis (all forms) Death-rate in various Wards each year since 1920.

Year.	Whole	W A R D S.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	1.37	1.02	1.87	1.63	1.05	1.21	1.95	1.09	1.33	1.37	.63
1921	1.35	1.62	1.81	1.60	1.30	.93	1.63	1.31	1.40	1.04	.65
1922	1.37	.82	1.44	1.31	1.43	1.51	1.80	1.00	1.63	1.36	.63
1923	1.43	1.65	1.46	1.45	1.29	1.18	1.71	1.34	1.86	1.32	.64
1924	1.23	1.51	.80	1.33	1.18	1.04	1.64	1.40	1.48	1.07	.54
1925	1.22	1.37	1.12	1.37	1.11	.93	1.41	1.10	1.37	1.38	.82
1926	1.12	1.43	1.19	1.18	.53	1.19	.73	1.21	1.26	1.54	.63
1927	1.16	1.69	1.03	1.40	.67	1.26	1.05	.87	1.04	1.33	.54
1928	1.05	.88	.86	1.22	1.30	1.22	.94	.92	1.04	.99	.63
1929	1.05	.77	1.29	1.20	1.02	.76	1.08	1.01	1.28	1.35	.64
1930	1.05	1.08	1.14	.76	.70	1.31	.69	1.46	1.18	.92	.23
1931	.95	.71	.76	.97	.80	1.01	1.28	1.25	.95	.83	.28
1932	.78	1.00	.84	.78	.69	.88	.58	.53	1.47	.57	.09
1933	.84	.53	.59	.84	.91	.76	.98	.67	1.57	.67	.65
1934	.80	.94	.42	.96	.68	.68	.86	.58	1.46	.67	.65
1935	.89	.99	.84	1.19	.68	.68	.69	1.02	.99	1.24	.09

TABLE XII.

Certified causes of death at the various ages
under 1 year for 1935.

CAUSE of DEATH.	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 and under 4 weeks	Total under 4 weeks	4 weeks and under 2 mths	2 and under 3 months	3 and under 6 months	6 and under 9 months	9 and under 12 months	Total Deaths under 1 year
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	2	1	3
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	1	1	1	...	2	1	2	7
Diphtheria ...	...	...	...	...	...	1	...	...	...	...	1
Infantile Paralysis...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis ...	...	...	...	...	...	...	...	...	1	...	1
Tuberculosis {	Lung ...	...	...	...	...	...	...	...	...	...	...
	General ...	...	...	...	...	...	...	...	...	...	...
	Abdominal ...	...	...	...	...	...	...	...	...	...	...
	Brain ...	...	...	...	...	...	...	...	...	3	3
	Other Forms ...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...
Other Infectious Diseases ...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms)	2	...	3	1	6	1	2	7	11	8	35
Bronchitis ...	...	...	...	1	1	2	1	1	1	...	6
Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respirat'y System	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis ...	...	...	...	...	...	2	...	3	7	3	15
Other Diseases of Digestive System	...	...	...	1	1	...	...	...	...	...	1
Meningitis (not T.B.)	...	...	1	...	1	...	...	...	1	1	3
Convulsions ...	1	...	...	...	1	1	1	1	1	...	5
Other Diseases of Nervous System	1	...	...	...	1	...	...	...	...	...	1
Congenital Malformations ...	7	...	2	...	9	1	3	2	1	...	16
Congenital Debility, Icterus, Sclerema, Marasmus ...	11	1	4	2	18	8	3	3	3	...	35
Premature Birth ...	47	3	4	3	57	3	...	...	...	...	60
Injury at Birth ...	4	...	...	...	4	...	...	...	...	...	4
Other Diseases peculiar to Early Infancy ...	9	...	...	...	9	...	...	...	...	1	10
Suffocation, Ov'rlay ^g	...	1	...	1	2	...	...	1	...	...	3
Rickets ...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ...	...	...	...	...	...	1	1	1	...	...	3
Violence ...	1	...	...	...	1	...	...	...	...	...	1
All Other Causes ...	...	...	1	...	1	1	1	1	...	1	5
Totals ...	83	5	15	10	113	22	12	22	29	20	218

TABLE XIII.

Infant Mortality from various groups of causes 1890-94,
and each year from 1913.

Year. Average	Con- genital	Diges- tive.	Respira- tory.	Infectious Diseases.	All Other Causes.	Total.
1890-94	53	32	44	25	29	183
1913	62	40	28	12	20	162
1914	58	33	15	17	13	136
1915	64	38	38	51	18	209
1916	63	20	15	13	15	126
1917	57	24	24	13	19	137
1918	53	16	24	20	13	126
1919	60	13	30	8	15	126
1920	53	21	36	10	11	181
1921	58	16	19	13	8	114
1922	50	11	27	10	11	109
1923	46	4	21	13	14	98
1924	54	12	25	12	17	120
1925	53	10	35	16	12	126
1926	58	11	18	4	12	103
1927	50	14	46	17	11	138
1928	45	9	28	9	11	102
1929	48	12	30	7	5	102
1930	55	7	32	13	6	113
1931	42	7	24	12	7	92
1932	32	7	17	9	7	72
1933	48	9	23	12	6	98
1934	37	4	13	10	10	74
1935	39	5	13	4	7	68

TABLE XIV.

Infant Mortality from all causes at various age periods
since 1916.

			DEATH RATES.			
Year		Births.	Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year.
1916	...	3,725	32	49	74	126
1917	...	2,842	25	42	68	137
1918	...	2,902	27	45	65	126
1919	...	3,466	29	51	78	126
1920	...	5,047	26	44	72	131
1921	...	4,450	27	47	67	114
1922	...	4,227	26	46	66	109
1923	...	4,199	29	44	61	98
1924	...	3,865	31	48	68	120
1925	...	3,694	25	42	65	126
1926	...	3,724	35	49	65	103
1927	...	3,517	26	46	70	138
1928	...	3,501	23	39	54	102
1929	...	3,486	25	40	55	102
1930	...	3,506	28	46	65	113
1931	...	3,431	26	34	51	92
1932	...	3,276	23	31	41	72
1933	...	3,099	33	43	59	98
1934	...	3,310	25	35	45	74
1935	...	3,195	26	35	46	68

TABLE XV.

Deaths and Death-rates from various groups of causes
each year since 1931 (all ages).

DISEASE GROUP.	1931		1932		1933		1934		1935	
	Pop. 176,006		Pop. 176,833		Pop. 177,177		Pop. 177,230		Pop. 178,157	
	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.
Congenital ...	144	.82	107	.61	153	.86	130	.73	127	.71
Digestive ...	134	.76	133	.75	130	.73	118	.67	116	.65
Respiratory ...	429	2.44	390	2.21	403	2.27	302	1.70	290	1.63
Infectious ...	325	1.85	272	1.54	359	2.03	287	1.62	247	1.39
Circulatory ...	447	2.54	524	2.96	471	2.66	517	2.92	612	3.44
Genito-Urinary ...	72	.41	75	.42	97	.55	83	.47	76	.43
Malignant ...	276	1.57	297	1.68	321	1.81	335	1.89	305	1.71
Nervous ...	301	1.71	337	1.91	302	1.70	334	1.88	272	1.53
Other Causes ...	317	1.80	309	1.75	341	1.92	311	1.75	301	1.69
	2445	13.89	2444	13.82	2577	14.54	2417	13.68	2346	13.17

TABLE XVI.

Number of Illegitimate Births, number of Deaths (under 1 year)
of Illegitimate Infants, and Death-rate per 1,000 Illegitimate
Births since 1920.

Year.	Illegitimate Births.	Deaths of Illeg. Infants.	Rate per 1000 Illeg. Births.
1920	427	104	244
1921	344	65	189
1922	296	45	152
1923	331	43	130
1924	280	52	186
1925	235	33	140
1926	256	33	129
1927	268	48	179
1928	274	42	153
1929	265	29	109
1930	276	44	159
1931	254	28	110
1932	226	23	102
1933	254	45	177
1934	272	28	103
1935	240	24	100

TABLE XVII.

Five-yearly average annual death-rates per 100,000 population from certain of the Infectious Diseases, 1876-1925, and number of deaths and death-rates per 100,000 each year since 1926.

YEAR.	Smallpox.		Scarlet Fever.		Enteric Fever.		Typhus Fever.		Diphtheria.		Measles.		Whooping Cough.	
	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.
1876-1880	—	.1	—	26.5	—	22.3	—	10.4	—	29.1	—	52.7	—	84.4
1881-1885	—	.1	—	14.7	—	14.1	—	5.3	—	40.0	—	33.0	—	86.1
1886-1890	—	0	—	33.0	—	10.5	—	2.8	—	20.0	—	32.7	—	67.3
1891-1895	—	.2	—	5.7	—	17.6	—	4.0	—	19.7	—	51.5	—	64.4
1896-1900	—	0	—	14.5	—	10.4	—	2.5	—	16.1	—	36.5	—	43.9
1901-1905	—	1.5	—	4.1	—	10.8	—	.6	—	12.7	—	42.5	—	55.5
1906-1910	—	.1	—	14.5	—	3.7	—	.7	—	25.9	—	60.8	—	42.1
1911-1915	—	.5	—	10.9	—	3.6	—	.5	—	21.0	—	41.7	—	61.2
1916-1920	—	.1	—	2.7	—	2.8	—	.2	—	18.5	—	33.1	—	15.3
1921-1925	—	—	—	13.3	—	.6	—	—	—	22.8	—	40.5	—	25.7
1926	0	—	28	16.5	1	.6	0	—	66	38.8	1	.6	4	2.4
1927	0	—	9	5.2	0	—	0	—	69	40.0	76	44.1	48	27.8
1928	0	—	0	—	0	—	0	—	30	17.4	16	9.3	36	20.9
1929	0	—	3	1.8	2	1.2	0	—	13	7.8	1	.6	7	4.2
1930	0	—	0	—	1	.6	0	—	13	7.8	65	39.0	29	17.4
1931	0	—	0	—	2	1.1	0	—	17	9.7	14	8.0	44	25.0
1932	0	—	3	1.7	0	—	0	—	17	9.6	48	27.1	10	5.7
1933	0	—	13	7.3	1	.6	0	—	10	5.6	0	—	35	19.8
1934	0	—	11	6.2	2	1.1	0	—	6	3.4	56	31.6	17	.96
1935	0	—	1	.6	0	—	0	—	16	9.0	13	7.3	12	6.7

TABLE XVIII.

Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases 1891-1925, and No. of Cases notified and intimated, No. of Deaths, and Case Mortality each year since 1926.

YEAR.	Smallpox.			Scarlet Fever.			Enteric Fever.			Typhus Fever.			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.
1891-1895	—	—	3.7	—	—	3.3	—	—	15.1	—	—	9.8	—	—	38.0	—	—	8.7	—	—	70.8
1896-1900	—	—	—	—	—	4.2	—	—	15.2	—	—	22.5	—	—	23.2	—	—	8.4	—	—	47.9
1901-1905	—	—	5.4	—	—	2.3	—	—	16.6	—	—	14.0	—	—	16.2	—	—	10.2	—	—	38.8
1906-1910	—	—	1.5	—	—	3.0	—	—	11.3	—	—	12.1	—	—	17.3	—	—	10.4	—	—	17.6
1911-1915	—	—	5.3	—	—	2.5	—	—	9.9	—	—	13.3	—	—	11.1	—	—	11.0	—	—	13.2
1916-1920	—	—	6.7	—	—	1.4	—	—	11.2	—	—	26.7	—	—	11.0	—	—	5.7	—	—	5.2
1921-1925	—	—	—	—	—	2.4	—	—	7.3	—	—	—	—	—	9.8	—	—	6.3	—	—	8.9
1926	0	0	—	1275	28	2.2	25	1	4.0	0	0	—	786	66	8.4	77	1	1.3	149	4	2.7
1927	152	0	—	414	9	2.2	9	0	—	0	0	—	1023	69	6.7	2032	76	3.7	924	48	5.2
1928	5	0	—	208	0	—	3	0	—	0	0	—	623	30	4.8	1062	16	1.5	829	36	4.3
1929	0	0	—	822	3	.4	17	2	11.8	0	0	—	437	13	3.0	72	1	1.4	208	7	3.4
1930	0	0	—	302	0	—	15	1	6.7	0	0	—	403	13	3.2	2605	65	2.5	673	29	4.3
1931	0	0	—	246	0	—	18	2	11.1	0	0	—	395	17	4.3	383	14	3.7	840	44	5.2
1932	0	0	—	605	3	.5	5	0	—	0	0	—	372	17	4.6	2005	48	2.4	239	10	4.2
1933	0	0	—	1901	13	.7	29	1	3.4	0	0	—	368	10	2.7	564	0	—	893	35	3.9
1934	0	0	—	1188	11	.9	34	2	5.9	2	0	—	343	6	1.7	2149	56	2.6	499	17	3.4
1935	0	0	—	845	1	.1	5	0	—	0	0	—	459	16	3.5	216	13	6.0	486	12	2.5

TABLE XIX.

MALIGNANT DISEASES.

Number of Deaths during each year since 1921 :—

Year.	Males.	Females.	Total.
1921	113	176	289
1922	104	168	272
1923	115	148	261
1924	103	167	270
1925	114	173	287
1926	111	154	265
1927	111	165	276
1928	138	200	338
1929	101	179	280
1930	136	176	312
1931	122	154	276
1932	130	163	293
1933	142	179	321
1934	132	203	335
1935	126	170	305

TABLE XX.

Death-rate per 10,000 population, from Malignant Diseases, each year since 1921, sexes given separately and together.

Year.	Males.	Females.	Total.
1921	15.13	18.80	17.17
1922	16.62	17.55	15.81
1923	15.17	15.36	15.27
1924	13.55	17.52	15.76
1925	15.16	18.37	16.95
1926	14.70	16.29	15.58
1927	14.50	17.21	16.01
1928	18.05	20.89	19.63
1929	13.61	19.27	16.76
1930	18.40	19.01	18.74
1931	15.44	15.88	15.68
1932	16.37	16.73	16.57
1933	17.85	18.34	18.12
1934	16.59	20.79	18.90
1935	15.75	18.23	17.12

TABLE

Age and Sex Distribution of Deaths from Malignant Diseases

AGE GROUPS.		BUCCAL CAVITY							PHARYNX, OESOPHAGUS, STOMACH, LIVER and ANNEXA						PERITONEUM, INTESTINES and RECTUM				
		Jaw	Larynx	Mouth	Nose	Palate	Throat	Tongue	Tonsil	Gall Bladder	Liver	Oesophagus	Pharynx	Pylorus	Stomach	Bowel	Colon	Intestine	Rectum
Under 20	M	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20-25	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
25-35	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	2	..	..
35-45	M	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..
	F	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	1
45-55	M	..	1	..	..	..	..	..	..	..	..	..	..	3	..	3	..	..	2
	F	..	2	..	..	..	..	1	..	..	1	1	1	1	..	1	..	..	..
55-65	M	3	..	1	..	..	1	2	1	1	1	2	2	..	10	1	1	1	..
	F	..	1	..	..	..	..	..	2	2	1	..	1	9	3	3	4	2	5
65-75	M	2	1	1	..	1	..	1	1	1	2	2	..	..	11	1	7	1	4
	F	1	..	..	..	..	..	..	1	7	..	..	1	8	1	5	..	..	2
75 and up	M	..	1	..	..	1	1	..	..	..	2	1	..	..	3	..	2	..	3
	F	..	..	..	..	..	..	..	1	4	1	..	1	7	..	5	1	..	1
Totals		6	6	2	1	2	2	3	3	7	19	9	3	4	56	7	31	5	20

XXI.

during 1935, showing parts of the body affected

FEMALE GENITAL ORGANS			BREAST	SKIN		OTHER OR UNSPECIFIED ORGANS														TOTALS
Ovary	Uterus	Vagina		Face	Rodent Ulcer	Abdomen	Bladder	Brain	Groin	Kidney	Lung	Mediastinum	Pancreas	Pelvis	Prostate	Spine	Testicle	Other Parts	Not Specified	
..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	4
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	9
..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	8	
..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	5	19
..	6	..	2	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	14	
..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	1	13	39
5	6	..	6	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	26	
..	..	..	..	..	..	..	2	..	..	1	4	1	1	..	..	..	..	1	37	84
..	4	..	8	..	..	..	..	..	..	1	2	..	..	..	..	..	..	1	47	
..	..	..	..	1	..	..	1	..	..	..	3	..	1	..	4	1	..	..	47	92
3	4	..	8	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	45	
..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	1	..	..	..	19	56
..	4	1	4	..	1	1	..	..	1	1	1	..	1	..	..	..	..	1	37	
9	25	1	28	1	1	3	5	1	1	3	17	1	4	1	5	3	1	7	2	305

TABLE XXII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).

Year	Total Deaths	Death-rate per 100,000
1876-1880	...	508.5
1881-1885	...	482.3
1886-1890	...	463.2
1891-1895	...	473.2
1896-1900	...	419.8
1901-1905	...	387.1
1906-1910	...	345.6
1911-1915	...	329.5
1916-1920	...	327.3
1921-1925	...	278.6
1926	401	235.8
1927	592	343.3
1928	471	273.5
1929	607	363.2
1930	522	313.5
1931	429	243.7
1932	390	220.5
1933	403	227.5
1934	302	170.4
1935	290	162.8

TABLE XXIII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926 from Diabetes Mellitus.

Year	Total Deaths	Death-Rate per 100,000
1876-1880	...	—
1881-1885	...	1.8
1886-1890	...	.5
1891-1895	...	2.0
1896-1900	...	2.4
1901-1905	...	5.5
1906-1910	...	5.9
1911-1915	...	8.5
1916-1920	...	5.5
1921-1925	...	6.9
1926	11	6.5
1927	19	11.0
1928	15	8.7
1929	20	12.0
1930	13	7.8
1931	24	13.6
1932	19	10.7
1933	18	10.2
1934	21	11.8
1935	23	12.9

TABLE XXIV.

INFLUENZA.

Deaths in which Influenza was given as a cause each month
January 1926—December 1935.

MONTH.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
January ...	1	6	1	6	2	0	1	67	0	5
February ...	0	14	0	55	1	4	6	31	0	5
March ...	0	27	3	4	3	20	7	3	1	3
April ...	14	3	1	1	3	11	1	0	0	0
May ...	8	0	0	0	0	2	3	2	0	2
June ...	1	2	0	1	1	1	0	1	0	1
July ...	0	0	0	2	1	0	0	0	2	0
August ...	2	0	0	0	0	0	2	2	1	0
September ...	1	3	1	0	1	2	0	1	0	0
October ...	2	6	2	0	1	0	0	1	0	0
November ...	5	4	3	2	1	1	2	0	1	1
December ...	2	4	7	1	2	3	2	4	8	1
Totals ...	36	69	18	72	16	44	24	112	13	18

TABLE XXV.

Deaths in which Influenza appears as a cause in death certificate
1926-1935 classified in age periods.

AGE PERIODS.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Under 1 year	1	3	1	6	0	1	1	3	1	0
1- 5 years	2	4	0	3	0	0	0	4	0	0
5-15 „	1	3	0	2	1	0	1	1	0	0
15-25 „	3	3	1	2	0	0	0	2	1	1
25-45 „	4	11	4	12	1	5	4	21	2	2
45-65 „	8	21	4	14	6	17	6	30	4	4
65 and upwards	17	24	8	33	8	21	12	51	5	11
Totals	36	69	18	72	16	44	24	112	13	18

During 1935, 1 death was certified as due to Influenza alone,
while in 17 cases it was associated with :—

Bronchitis	...	...	...	2
Pneumonia	...	...	...	6
Other Respiratory Disease	...	...	...	1
Other causes	...	...	...	8

TABLE XXVI.

INFECTIOUS DISEASES.—Number of Cases of each disease notified and reported in Dundee during the Year 1935. Also number removed and number not removed to Hospital.

DISEASE	At all ages	At Ages—Years							Cases removed to Hospital	Cases not removed to Hospital
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards		
Enteric Fever	5	...	1	1	1	1	...	1	4	1
Scarlet Fever ...	845	7	231	501	64	39	2	1	534	311
Diphtheria ...	459	18	113	228	63	33	4	...	426	33
Erysipelas ...	154	3	4	4	7	35	67	34	67	87
Puerperal Fever	21	...	...	...	7	14	...	...	21	0
Puerperal Pyrexia	36	...	...	...	14	22	...	...	29	7
Ophthalmia										
Neonatorum ...	56	56	...	...	...	...	...	...	6	50
Dysentery ...	16	2	6	4	1	2	1	...	12	4
Infantile Paralysis	2	...	2	...	...	...	...	...	1	1
Acute Primary										
Pneumonia ...	417	39	129	91	44	59	31	24	242	175
Acute Influenzal										
Pneumonia ...	31	...	2	5	6	5	7	6	...	31
Malaria ...	4	...	...	...	1	3	...	...	...	4
Pulmonary										
Tuberculosis ...	265	...	12	72	56	85	34	6	200	65
Non-Pulmonary										
Tuberculosis ...	129	5	24	58	21	11	9	1	53	76
Cerebro-Spinal										
Fever ...	11	5	3	1	1	1	...	...	11	0
*Chickenpox ...	756	21	150	584	...	1	...	...	39	717
*Measles ...	216	25	93	97	...	...	1	...	68	148
*Whooping Cough	486	59	178	248	1	...	...	...	85	401
Totals	3909	240	948	1894	287	311	156	73	1798	2111

*Not notifiable in Dundee during 1935.

Tuberculosis—cases notified in a previous year and removed to Hospital for the first time during 1935—

Pulmonary, 28 ; Non-Pulmonary. 5 ; Total, 33.

TABLE XXVII.

Monthly Notifications and Intimations of Infectious Disease,
Dundee, 1935.

DISEASE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Typhoid Fever ...	1	1	...	...	...	1	1	1	...	...	...	...	5
Scarlet Fever ...	133	87	88	55	46	64	39	43	77	92	68	53	845
Diphtheria ...	34	45	39	25	25	25	18	38	68	44	49	49	459
Erysipelas ...	9	14	18	18	12	7	8	8	8	19	13	20	154
Puerperal Fever ...	1	2	1	1	1	2	2	1	3	4	1	2	21
Puerperal Pyrexia ...	5	6	6	...	3	4	2	2	2	...	4	2	36
Ophthalmia Neonatorum ...	1	1	3	4	6	3	4	7	12	5	7	3	56
Malaria ...	...	...	...	1	2	...	...	...	...	...	...	1	4
Dysentery ...	...	...	1	...	3	1	1	2	2	1	2	3	16
Acute Poliomyelitis ...	...	...	...	...	...	...	...	...	1	...	1	...	2
Acute Primary Pneumonia ...	49	59	52	33	28	23	22	27	26	21	31	46	417
Acute Influenzal Pneumonia ...	5	5	6	2	3	2	1	1	...	1	3	2	31
Pulmonary Tuberculosis ...	18	22	35	28	20	26	23	21	21	22	12	16	264
Non-Pulmonary Tuberculosis ...	17	6	12	17	20	10	9	7	7	8	12	5	130
Cerebro-Spinal Fever ...	...	1	...	3	1	...	...	...	1	...	4	1	11
*Chickenpox ...	86	75	133	92	42	53	8	12	25	71	93	66	756
*Measles ...	123	43	13	4	4	4	4	3	4	9	2	3	216
*Whooping Cough ...	85	82	78	79	79	25	8	7	16	10	16	1	486
Totals ...	567	449	485	362	295	250	150	180	273	307	318	273	3909

* Not notifiable in Dundee during 1935.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population at various age-periods each year since 1917.

NON-PULMONARY TUBERCULOSIS.

Year.	PULMONARY TUBERCULOSIS.				65 & over.				NON-PULMONARY TUBERCULOSIS.				65 & over.			
	0-5.		15-25.		25-45.		45-65.		0-5.		15-25.		25-45.		45-65.	
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1917	Notifications 16	.31	56	3.27	160	3.19	79	2.53	7	.71	54	2.75	34	.97	30	.60
	Deaths 4	.20	14	.38	39	1.12	95	1.89	8	.91	53	2.70	21	.60	22	.44
1918	Notifications 25	1.27	57	2.84	131	2.61	77	2.52	4	.40	50	2.54	54	1.55	23	.46
	Deaths 11	.56	23	.63	63	1.81	76	1.51	9	.92	25	1.27	29	.79	15	.43
1919	Notifications 13	.64	72	1.92	102	2.91	180	3.33	63	2.02	12	1.19	33	.94	17	.32
	Deaths 4	.19	8	.21	33	1.11	71	1.35	7	.69	24	1.19	19	.50	13	.37
1920	Notifications 13	.67	74	2.05	94	2.62	159	3.07	75	2.40	8	.84	45	2.30	39	1.05
	Deaths 1	.05	7	.19	38	1.20	73	1.29	56	1.81	8	.84	31	1.61	16	.43
1921	Notifications 21	1.43	57	1.31	105	3.30	123	2.77	54	1.62	8	.77	24	1.50	47	1.46
	Deaths 3	.20	5	.15	33	1.19	76	1.64	38	1.12	8	.77	17	1.15	10	.50
1922	Notifications 15	.99	66	2.05	109	3.34	130	2.75	73	2.10	8	.76	49	3.26	54	1.68
	Deaths 0	—	10	.31	38	1.10	64	1.35	53	1.53	5	.47	26	1.73	15	.46
1923	Notifications 20	1.34	50	1.50	72	2.23	97	2.07	60	1.74	10	.95	50	3.35	70	2.19
	Deaths 6	.40	11	.34	45	1.39	64	1.36	35	1.01	6	.57	35	2.34	16	.50
1924	Notifications 14	.93	43	1.50	73	2.25	101	2.15	51	1.47	8	.76	36	3.34	37	1.15
	Deaths 1	.06	8	.25	44	1.36	55	1.17	33	.96	5	.47	28	1.87	14	.44
1925	Notifications 8	.54	49	1.55	72	2.25	100	2.15	42	1.23	9	.88	36	2.44	22	1.01
	Deaths 4	.27	6	.19	39	1.22	57	1.23	36	1.05	6	.58	18	1.92	9	.28
1926	Notifications 3	.20	67	2.10	72	2.24	107	2.29	53	1.55	6	.68	37	2.49	41	1.29
	Deaths 0	—	4	.13	34	1.06	60	1.29	35	1.02	5	.48	20	1.35	12	.33
1927	Notifications 7	.47	80	2.48	76	2.83	80	1.69	40	1.15	5	.48	38	2.53	23	.87
	Deaths 3	.20	6	.19	45	1.88	70	1.48	26	.75	3	.29	21	1.40	5	.15
1928	Notifications 11	.73	82	2.54	62	1.90	109	2.31	47	1.35	7	.67	30	2.00	49	1.52
	Deaths 3	.20	5	.16	34	1.04	59	1.25	33	.95	4	.38	15	1.00	12	.37
1929	Notifications 5	.34	63	2.01	65	2.06	88	1.92	33	.98	6	.59	30	2.06	23	.74
	Deaths 3	.21	3	.10	27	.85	64	1.40	27	.80	6	.50	18	1.24	5	.16
1930	Notifications 7	.48	80	2.57	59	1.87	81	1.77	35	1.04	5	.49	35	2.41	31	.99
	Deaths 1	.07	3	.10	30	.95	54	1.18	33	.98	5	.49	22	1.52	5	.16
1931	Notifications 5	.33	65	2.14	62	2.00	85	1.72	25	.68	3	.23	21	1.39	28	.92
	Deaths 0	—	0	.00	29	.91	66	1.33	29	.79	7	.23	12	.79	7	.23
1932	Notifications 4	.26	55	1.80	46	1.48	80	1.61	37	1.00	4	.33	29	1.91	49	1.60
	Deaths 2	.15	16	.46	28	.90	46	.92	24	.65	2	.15	11	.72	26	.85
1933	Notifications 7	.46	69	2.25	56	1.80	90	1.80	30	.81	3	.30	29	1.90	26	.85
	Deaths 1	.07	7	.23	22	.71	41	.82	27	.73	4	.30	21	1.38	8	.26
1934	Notifications 8	.53	59	1.93	53	1.70	84	1.68	38	1.03	4	.45	30	2.14	40	1.31
	Deaths 1	.07	4	.13	23	.74	43	.95	22	.60	2	.15	13	.85	11	.36
	Deaths 1	.07	4	.13	23	.74	43	.95	22	.60	2	.15	13	.85	11	.36
	Deaths 1	.07	4	.13	23	.74	43	.95	22	.60	2	.15	13	.85	11	.36

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).

YEAR.	Estimated Population.	NOTIFICATIONS AND CASE RATES.				DEATHS AND DEATH-RATES.			
		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1913	164,976	400	2.42	Non-Pulmonary Tuberculosis Notifiable in March, 1914.		191	1.16	128	.77
1914	176,584	590	3.34	377	2.12	249	1.41	126	.71
1915	177,300	485	2.73	377	2.12	275	1.55	113	.64
1916	181,437	522	2.87	213	1.17	259	1.42	95	.52
1917	181,773	432	2.37	171	.94	218	1.20	140	.77
1918	181,777	393	2.16	201	1.11	256	1.40	90	.49
1919	185,388	442	2.38	137	.73	165	.89	83	.44
1920	184,084	423	2.29	132	.71	183	.99	69	.38
1921	168,217	376	2.23	99	.58	168	.99	59	.35
1922	172,061	401	2.33	162	.94	168	.98	67	.39
1923	170,901	309	1.80	216	1.26	167	.98	78	.45
1924	171,295	295	1.72	142	.83	146	.85	65	.38
1925	169,361	280	1.65	121	.72	148	.87	59	.35
1926	170,060	308	1.81	123	.72	138	.81	52	.31
1927	172,444	288	1.67	112	.65	153	.89	47	.27
1928	172,214	318	1.85	131	.76	138	.80	42	.25
1929	167,109	260	1.56	90	.54	130	.78	45	.27
1930	166,495	267	1.60	105	.63	126	.76	49	.29
1931	176,006	245	1.39	87	.49	128	.73	39	.22
1932	176,833	229	1.30	129	.73	107	.61	31	.18
1933	177,177	255	1.44	88	.50	102	.58	46	.26
1934	177,230	246	1.39	103	.58	95	.54	47	.26
1935	178,157	265	1.49	129	.72	119	.67	39	.22

TABLE XXX.

TUBERCULOSIS.—Notifications and Deaths with corresponding rates per 1,000 population in various wards, 1935.

WARD.	NOTIFICATIONS AND CASE RATES.						DEATHS AND DEATH - RATES.		
	Pulmonary Tuberculosis.	Per Non-Pulmonary Tuberculosis.	Per 1000.	Tuberculosis (all forms).	Per Pulmonary Tuberculosis	Per 1000.	Per Non-Pulmonary Tuberculosis.	Per 1000.	Per Tuberculosis (all forms).
I. ...	23	1.34	7	.41	30	1.75	3	.18	17 .99
II. ...	21	1.76	8	.67	29	2.43	2	.17	10 .84
III. ...	16	.95	16	.95	32	1.90	7	.42	20 1.19
IV. ...	20	1.14	11	.62	31	1.75	2	.68	12 .68
V. ...	52	2.07	23	.92	75	2.99	2	.08	17 .68
VI. ...	29	1.66	14	.80	43	2.46	5	.29	12 .69
VII. ...	40	1.77	18	.79	58	2.56	6	.27	23 1.02
VIII. ...	32	1.66	10	.52	42	2.18	5	.26	19 .99
IX. ...	24	1.24	17	.87	41	2.11	6	.31	24 1.24
X. and XI. ...	8	.74	5	.46	13	1.20	1	.09	1 .09
No fixed abode	—	—	—	—	—	—	—	—	3 —
Totals ...	265	1.49	129	.72	394	2.21	39	.22	158 .89

TABLE XXXI.

PULMONARY TUBERCULOSIS—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1915.

Year.	NOTIFICATIONS.				DEATHS.			
	Males.		Females.		Males.		Females.	
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000
1915	216	2.75	269	2.72	106	1.35	169	1.71
1916	227	2.83	295	2.92	99	1.23	160	1.58
1917	181	2.25	251	2.48	100	1.24	118	1.16
1918	198	2.46	195	1.92	117	1.45	139	1.37
1919	238	2.90	204	1.97	90	1.09	75	.72
1920	223	2.74	200	1.95	95	1.16	88	.85
1921	197	2.64	178	1.90	81	1.08	87	.92
1922	170	2.23	231	2.41	75	.98	93	.97
1923	149	1.97	160	1.68	73	.96	94	.98
1924	135	1.78	160	1.68	75	.98	71	.74
1925	125	1.66	155	1.65	61	.81	87	.93
1926	135	1.79	173	1.83	67	.89	71	.75
1927	147	1.92	141	1.47	76	.99	77	.80
1928	159	2.08	159	1.66	67	.88	71	.74
1929	126	1.70	134	1.44	61	.82	69	.74
1930	131	1.77	136	1.47	64	.87	62	.67
1931	121	1.53	124	1.28	58	.73	70	.72
1932	112	1.41	117	1.20	55	.69	52	.53
1933	143	1.80	112	1.15	52	.65	50	.51
1934	124	1.56	122	1.25	46	.58	49	.50
1935	132	1.65	133	1.35	65	.81	54	.55

TABLE XXXII.

Pulmonary Tuberculosis—Deaths in Institutions each year since 1926.

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Total Deaths from Pulmon. T.B. -	138	153	138	130	126	128	107	102	105	119
No. of Deaths from Pulmon. T.B. in Institutions	77	70	74	70	64	71	58	49	61	66
Percentage of Total Deaths from Pul. T. B. dying in Institutions	55.8	45.8	53.6	53.8	50.8	55.5	54.2	48.0	58.1	55.5

TABLE XXXIII.

MATERNAL MORTALITY.

Certified causes of deaths of women from diseases and accidents connected with pregnancy and child-birth during 1935.

Accidents of pregnancy	...	...	...	6
Puerperal hæmorrhage	...	...	...	1
Puerperal septicæmia, including post-abortive sepsis	...	...	...	4
Toxæmias of pregnancy, albuminuria, convulsions	...	...	...	5
Other puerperal diseases	...	...	...	2
				—
				18

TABLE XXXIV.

Maternal Mortality Rates—number of deaths per 1,000 registered births each year, 1926-1935.

1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
8.86	7.96	6.86	6.88	4.28	5.25	4.58	7.74	5.44	5.63

TABLE XXXV.

Number of births per 1,000 population, illegitimate births per 100 registered births, and marriages per 1,000 population, each year since 1914.

Year.	Birth-rate.	Illegitimate-rate.	Marriage-rate.
1914	25.2	9.1	8.3
1915	22.1	8.0	9.5
1916	20.5	8.0	7.1
1917	15.6	11.2	7.0
1918	16.0	10.6	7.5
1919	18.7	11.1	10.6
1920	27.4	8.5	11.4
1921	26.5	7.7	10.0
1922	24.6	7.0	8.8
1923	24.6	7.9	8.8
1924	22.6	7.2	7.6
1925	21.8	6.4	7.6
1926	21.9	6.9	7.7
1927	20.4	7.6	7.4
1928	20.3	7.8	7.8
1929	20.9	7.6	7.7
1930	21.1	7.9	8.1
1931	19.5	7.4	7.2
1932	18.5	6.9	7.3
1933	17.5	8.2	7.9
1934	18.7	8.2	8.7
1935	17.9	7.5	8.9

TABLE XXXVI.
VACCINATION—1921–1934.

YEAR	Total Births (excluding Transcripts received)	Successfully Vaccinated		Insusceptible to Vaccination		Died before Vaccination		Conscientious Objections		Postponement or unaccounted for	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
1921	4509	1191	26.4	27	.6	379	8.4	2682	59.5	230	5.1
1922	4288	1193	27.8	12	.3	323	7.5	2556	59.6	204	4.8
1923	4275	1240	29.0	11	.2	284	6.6	2567	60.1	173	4.1
1924	3921	1077	27.5	16	.4	352	9.0	2271	57.9	205	5.2
1925	3750	978	26.1	17	.4	306	8.2	2270	60.5	179	4.8
1926	3822	1087	28.4	25	.7	309	8.1	2252	58.9	149	3.9
1927	3591	1223	34.2	49	1.4	307	8.5	1933	53.8	74	2.1
1928	3585	1198	33.4	43	1.2	253	7.1	2037	56.8	54	1.5
1929	3598	1118	31.1	63	1.7	240	6.7	2124	59.0	53	1.5
1930	3625	1111	30.6	32	.9	260	7.2	2186	60.3	36	1.0
1931	3531	972	27.5	64	1.8	188	5.3	2247	63.7	60	1.7
1932	3411	904	26.5	47	1.4	171	5.0	2236	65.5	53	1.6
1933	3245	836	25.7	28	.9	204	6.3	2135	65.8	42	1.3
1934	3466	853	24.6	34	1.0	163	4.7	2377	68.6	39	1.1

TABLE XXXVII

Port Sanitation.

DETAILS OF VESSELS ENTERING THE PORT DURING 1935.

	No. of Arrivals.	Tonnage.	No. Inspected by Medical Officer.	No. Inspected by Sanitary Inspector.	No. Reported Defective.	No. of Orders Issued.
From Foreign—						
Steamers	328	610,042	119	328	179	37
Motor Ships	12	36,901	5	12	...	...
Coastwise	720	284,260	...	...	...	...
	1060	931,203	124	340	179	37

TABLE XXXVIII.

Port Sanitation.

Principal Foreign Places from which ships arrived and notes of cargoes.

PORT OR COUNTRY.	No.	CARGOES
India (Calcutta, Chittagong, Colombo, etc.)	93	Jute, Gunnies, Linseed, Desiccated Coconut.
Hamburg	23	Sugar, Potatoes, Farina Phosphates, Fancy Goods.
Rotterdam, Ghent and Dunkirk	51	Sugar, Milk, Cheese, Fruit, Vegetables, Moss Litter, Steel Plates and Tubing.
Antwerp	29	Vegetables, Iron, and Steel.
Sweden	17	Paper, Paper Pulp, Box Boarding.
U.S.A. and Canada	26	Flour, Sugar, Pitch, Ochre.
Baltic Ports	28	Timber, and Flax.
Norway	22	Paper and Paper Pulp.
Algeria and Tunis	14	Esparto Grass and Phosphates
West Indies, etc.	7	Sugar and Oil.
Soviet Russia	15	Timber and Flax.
Other European Ports	14	Timber, Cork, Pyrites, Phosphates Oilcake, Grain and Vegetables.
Australia	2	Sugar.

TABLE XXXIX.
Port Sanitation.

Details of Action taken:—

Total Number of verbal intimations ...	...	...	...	...	...	...	303
Total Number of rat notices issued ...	...	...	...	...	...	...	37
Total Number of visits to ships ...	...	...	...	...	...	...	869
Total Number of ships from infected or suspected ports ...	...	...	...	...	...	...	118
Do.	...	...	...	...	...	(Direct)	10
Do.	...	...	...	...	...	(Indirect)	108
Nuisances and defects attended to:—285							
Forecastsles cleaned out ...	...	...	...	...	...	...	38
Messrooms cleaned ...	...	...	...	...	...	...	25
Galleys and store-rooms cleaned ...	...	...	...	...	...	...	36
Accumulation of food refuse ...	...	...	...	...	...	...	11
Choked or defective W.C.'s ...	...	...	...	...	...	...	40
Dirty W.C.'s ...	...	...	...	...	...	...	23
Discharge of foul water on quay ...	...	...	...	...	...	...	49
Ventilators obstructed ...	...	...	...	...	...	...	61
Excessive smoke emission ...	...	...	...	...	...	...	2
							285

In addition the following work was carried out while the vessels were in Port :—

Fresh water tanks cleaned out ...	...	...	...	...	...	...	51
Forecastsles Washed or painted ...	...	...	...	...	...	...	63
Bathroom or wash-places painted ...	...	...	...	...	...	...	17
Galleys washed or painted ...	...	...	...	...	...	...	72
W.C.'s painted ...	...	...	...	...	...	...	19

TABLE XL.
BACTERIOLOGICAL LABORATORY.

Examinations carried out on behalf of the Department by Professor Tulloch, in the Laboratory, University College, Dundee.

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Wassermann Tests...	3513	3660	3619	4107	4177	4588	4419	4053	4179	4462	4367
Microscopical and other examinations under V.D. Scheme for—											
Syphilis ..	33	35	42	31	36	109	51	56	49	33	36
Gonorrhoea ..	1690	1863	2227	2933	3301	3019	2779	3714	3725	4266	4687
Swabs for diphtheria ..	2027	1980	2560	1898	1500	1197	962	823	857	894	1156
Widal tests for enteric fever ..	140	220	236	106	228	206	212	150	228	262	164
Sputum examinations ..	385	320	299	310	302	261	291	300	329	339	360
Examination of faeces, blood cultures, etc., for—											
Enteric fever ..	80	91	47	26	131	100	214	63	240	321	128
Dysentery ..	13	6	2	11	37	70	50	112	78	165	149
Infantile Diarrhoea ..	8	4	3	7	—	—	—	—	—	—	—
Puerperal Fever ..	—	—	—	—	90	166	180	210	180	236	162
Milk examinations ..	97	101	97	75	74	105	11220	1481	78	84	1179
Food Poisoning—											
No. of outbreaks ..	(2)	(3)	(2)	(2)	(1)	(2)	(0)	(0)	(2)	(7)	(15)
No. of examinations ..	7	71	44	27	14	11	0	0	2	7	25
Corebro spinal meningitis ..	0	8	10	16	13	24	12	15	25	34	41
Other examinations ..	78	60	45	55	19	105	303	367	417	651	629
Totals ..	8071	8419	9231	9582	9922	9960	10693	10350	10387	11737	12058

*Includes 50 Rats examined for *Leptospira Icterohæmorrhagica*.

†Includes 1130 and 370 respectively for T.B. and for Epizootic Abortion of cattle, in collaboration with the Empire Marketing Board and the Department of Health for Scotland.

‡Includes 102 specimens of Milk examined in collaboration with the Scottish Milk Marketing Board.

TABLE XII.

DISINFECTION. 1935.

The table submitted below details the year's work in regard to disinfection.

MONTH	Bed Ticks	Beds	Mattresses	Bed Covers	Blankets	Sheets	Bolster Ticks	Bolster Cases	Pillow Ticks	Pillow Cases	Bed Panes	Aprons	H'dkerchiefs	Table Cloths	Towels	Wearing Apparel	Miscellaneous Articles	Total No. of Articles	No. of Homes from which clothes were removed
January	3	..	11	273	266	216	..	48	14	174	..	1	28	..	18	773	146	1971	216
February	4	..	10	178	235	158	1	38	14	133	1	1	32	..	8	626	160	1599	180
March	..	..	29	185	320	171	3	44	36	131	4	1	16	..	14	517	144	1615	149
April	1	..	12	180	131	91	2	38	20	70	..	..	15	..	4	348	99	1011	104
May	2	..	5	153	133	99	..	35	22	59	1	..	7	1	8	317	78	920	101
June	1	..	11	189	850	107	1	31	10	105	..	..	16	..	13	362	78	1774	105
July	31	..	21	165	386	70	..	16	29	49	..	..	10	..	8	182	70	1037	82
August	216	..	19	162	417	104	..	30	24	76	..	1	7	..	9	228	68	1361	82
September	..	..	10	296	222	203	..	50	10	138	..	1	23	1	3	509	129	1595	163
October	3	..	11	217	187	165	..	40	11	134	2	..	9	..	3	420	123	1325	138
November	1	..	16	202	180	134	..	25	43	92	3	1	27	..	11	428	121	1284	123
December	..	..	12	164	161	108	..	22	14	96	3	2	23	..	5	446	182	1238	131
Totals	262	..	167	2364	3488	1626	7	417	247	1257	14	8	213	2	104	5156	1398	16730	1574

The following figures relate to the articles disinfected and the houses concerned each year since 1924 :—

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Articles	26,763	32,978	29,430	22,721	16,642	20,976	19,994	15,892	20,265	28,714	20,408	16,730
Houses concerned	1,535	2,234	2,042	1,709	1,276	1,718	1,748	1,477	1,981	2,515	2,167	1,574

TABLE XLII.

FACTORIES, WORKSHOPS AND WORKPLACES.

YEAR 1935.

1. Inspection of Factories, Workshops and Workplaces, including Inspections made by Sanitary Inspectors.

PREMISES	Inspection	NUMBER OF	
		Written Notices	Occupiers Prosecuted
Factories (including factory laundries) ...	488	0	0
Workshops (including workshop laundries) ...	998	0	0
Workplaces (other than outworkers' premises) ...	335	0	0
	1,821	0	0

2. Defects found in Factories, Workshops and Workplaces

PARTICULARS	NUMBER OF DEFECTS			No. of Offences in respect to which Prosecu- tions were Instituted
	Found	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts†—				
Want of cleanliness	41	41	...	...
Want of ventilation	8	6	...	...
Overcrowding ... ..	...	...	...	...
Want of drainage of floors ... ..	...	...	...	...
Other nuisances ... ..	...	...	...	...
Sanitary accommodation—				
Insufficient	1	1	...	...
Unsuitable or defective	0	0	...	...
Not separate for sexes	2	1	...	...
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouse (S. 101) ... ..	...	...	...	...
Other offences	1	0	...	...
excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921)				
Total	53	49	...	...

†Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901 as remediable under the Public Health Acts.

TABLE XLIII.

DUNDEE INFANT HOSPITAL.

Year to 31st December, 1935.

In Hospital, 1st January, 1935	...	...	...	34
Admitted in 1935	...	...	...	126
				<hr/> 160
DISCHARGED—				
Relieved	...	...	72	
Taken home against advice	...	...	6	
Transferred to Dundee Royal Infirmary			7	
„ Ashludie Sanatorium			1	
„ King's Cross Hospital			24	
Sent Home—Chicken-Pox	...	...	1	
„ Mumps	...	...	1	
„ Measles	...	...	1	
„ Whooping Cough	...	...	4	
„ Contact Whooping Cough	...	...	7	
			<hr/>	124
				<hr/> 36
DIED—				
Broncho Pneumonia	...	...	1	
Convulsions	...	...	1	
			<hr/>	2
				<hr/>
In Hospital, 31st December, 1935	...	...	...	34
Death Rate	...	1.6 per cent.		
THE CASES TREATED WERE—				
Marasmus	...	...	76	
Debility	...	...	20	
Broncho-Pneumonia	...	...	6	
Chronic Broncho-Pneumonia	...	...	1	
Rickets	...	...	4	
Gastro-Enteritis	...	...	6	
Generalised Tuberculosis	...	...	2	
Abdominal Tuberculosis	...	...	2	
Hydrocephalus	...	...	1	
Erythroderma	...	...	1	
Pyloric Stenosis	...	...	4	
Exfoliative Dermatitis	...	...	1	
Laryngismus Stridulus	...	...	1	
Congenital Heart	...	...	1	
			<hr/>	126
Total Patient Days	...	...	11,412	
Highest Daily Number	...	...	35	
Lowest Daily Number	...	...	13	
Average	...	...	31.26	

TABLE XLIV.

VENEREAL DISEASES SCHEME, 1931 to 1935.

Patients suffering from Venereal Diseases, attending the V.D. Centre, who :—

Year	Left before completing a course of treatment.						Left after completing a course of treatment but before final tests as to cure..						Were transferred to other Centres.						Were discharged from Centre after completion of treatment.						Were remaining on treatment at end of year.						Totals of all cases attending throughout the year.							
	Both Sexes.			Males.			Females.			Both Sexes.			Males.			Females.			Both Sexes.			Males.			Females.													
	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per			No.	Cent.	Per	No.	Cent.	Per
	1931	145	8	53	5	92	12	108	6	57	5	51	7	138	7	95	8	43	6	406	21	305	27	101	14	777	41	427	37	350			47	1853	1114	739		
1933	158	8	56	5	102	11	155	8	58	5	97	10	118	6	62	6	56	6	423	21	307	27	116	12	850	42	422	39	428	46	2012	1083	929					
1933	124	7	59	6	65	7	150	9	61	6	89	10	129	7	79	8	50	5	405	22	240	25	165	19	714	40	567	38	547	38	1821	944	877					
1934	315	19	156	16	139	22	103	6	56	5	47	6	82	4	63	6	19	2	247	18	219	22	28	4	690	40	358	40	332	47	1696	983	713					
1935	301	16	116	10	185	24	79	4	50	4	29	4	133	7	103	9	30	4	309	16	270	25	59	5	757	40	438	38	519	43	1910	1189	751					

TABLE XLV.

Number of New Cases attending the V.D. Treatment Centre each year since 1924.

DISEASE.	1924.		1925.		1926.		1927.		1928.		1929.		1930.		1931.		1932.		1933.		1934.		1935.*	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis	135	150	128	203	115	264	102	140	92	133	127	151	189	209	137	138	116	164	104	131	103	99	117	95
Gonorrhoea	226	63	240	58	254	44	243	65	247	53	291	95	335	64	288	106	283	205	225	163	292	115	384	144
Mixed Infections	13	24	15	40	14	22	19	16	16	21	20	37	36	43	26	24	—	—	—	—	—	—	—	—
Other V.D.	25	1	57	—	99	—	56	—	66	1	65	—	69	—	49	—	47	—	55	—	81	—	79	—
Not suffering from V.D.	56	72	85	107	115	92	91	70	157	104	165	124	124	118	223	177	178	117	138	155	140	152	186	131
Totals	455	310	525	408	597	422	511	291	578	312	668	407	773	434	723	445	624	486	522	449	616	366	766	370
Totals (both sexes)	765	933	1,019	802	890	1,075	1,207	1,168	1,110	971	982	1,136												

*These figures apply to new cases only and do not include cases removed from the register during any previous year who returned during the year under report for treatment or observation of the same infection.

TABLE XLVI.

Number of Attendances at V.D. Treatment Centre each year since 1924.

	1924.		1925.		1926.		1927.		1928.		1929.		1930.		1931.		1932.		1933.		1934.		1935.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis	4,250	5,375	3,234	5,402	2,972	6,668	2,574	6,056	2,665	5,137	4,081	5,281	6,477	6,506	7,102	5,085	5,589	6,493	5,304	6,018	4,538	4,559	4,254	4,999
Gonorrhoea	9,458	3,522	9,178	3,949	9,169	3,815	10,782	5,502	9,541	5,330	11,717	5,639	18,243	5,751	17,877	5,944	18,072	7,729	16,740	7,568	16,853	7,847	21,246	9,848
Mixed Infections	874	2,879	832	3,145	580	2,557	674	2,273	942	1,726	1,263	2,309	2,226	2,805	1,566	1,327	—	—	—	—	—	—	—	—
Other V.D.	148	2	435	—	701	—	453	—	422	6	331	—	565	—	569	—	778	—	682	—	549	—	792	—
Not Suffering from V.D.	111	205	250	416	324	683	317	441	426	580	517	857	406	956	1,049	911	854	949	746	757	467	748	430	1,079
Totals	14,841	11,983	13,927	12,912	13,746	13,721	14,800	14,272	13,996	12,779	17,939	14,086	27,917	16,018	28,170	15,267	25,293	15,171	23,472	14,343	22,407	12,934	26,722	15,926
Totals (both sexes)	26,824	26,839	27,467	29,072	29,072	29,072	29,072	29,072	26,775	26,775	31,995	31,995	43,935	43,935	41,437	41,437	40,464	40,464	37,815	37,815	35,341	35,341	42,648	42,648

TABLE XLVII.

Doses of Arseno-Benzol Compounds Issued.

		Treatment Centre.	Other Institutions.	Medical Practitioners.	Total.
1919	...	1,958	13	141	2,112
1920	..	6,362	18	472	6,852
1921	...	6,280	239	358	6,877
1922	...	5,135	239	239	5,613
1923	...	5,224	198	123	5,545
1924	...	3,887	275	504	4,666
1925	..	2,836	341	398	3,575
1926	...	2,286	264	423	2,973
1927	...	2,826	18	272	3,116
1928	...	2,997	154	253	3,404
1929	...	3,673	235	342	4,250
1930	...	6,884	380	388	7, 52
1931	...	3,362	113	327	3,802
1932	...	3,582	126	182	3,890
1933	...	3,594	118	216	3,928
1934	...	2,170	660	112	2,942
1935	...	2,874	532	321	3,727

TABLE XLVIII.

LABORATORY WORK—The following examinations were carried out under the V.D. scheme each year since 1924 :—

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1932	1934	1935
Wassermann Tests	3,261	3,513	3,660	3,619	4,107	4,177	4,588	4,419	4,053	4,179	4,462	4,367
Microscopical and other Examinations	1,657	1,723	1,898	2,269	2,964	3,337	3,128	2,830	3,770	3,774	4,299	4,687
	4,918	5,236	5,558	5,888	7,071	7,514	7,716	7,249	7,823	7,953	8,761	9,054

TABLE XLIX.

Unsound Food. All Seized at the Public Slaughter-Houses.

Number of Seizures, Weight (in lbs.) of Meat Seized, and Reasons for Seizure.
FOR YEAR ENDING 31st DECEMBER, 1935.

DISEASE	BEEF		MUTTON		PORK		TOTAL	
	Number	Weight	Number	Weight	Number	Weight	Number	Weight
(a) Tuberculosis ...	...	2,814	...	...	107	4,483	2,921	249,341
(b) Other Diseases :—								
Abscesses, Tumours, and Cysts	554	883	227	102	176	36	957	1,021
Actinomycosis ...	111	354	2	13	...	...	113	367
Decomposition ...	9	1,729	15	352	...	...	24	2,081
Dropsical Conditions	9	1,024	53	743	8	149	70	1,916
Fevered Conditions	39	4,705	115	2,057	38	169	192	6,931
Fractures and Bruises	87	4,909	25	280	19	405	131	5,594
Inflammation of Abdominal Organs	233	2,066	129	395	15	126	377	2,587
Jaundice ...	1	482	...	...	...	...	1	482
Melanosis ...	3	136	...	...	...	...	3	136
Pneumonia ...	37	2,131	37	540	12	70	86	2,741
Rheumatism ...	12	967	16	134	11	84	39	1,185
Septic Conditions	16	6,633	10	586	5	657	31	7,876
Swine Fever ...	...	...	...	...	1	82	1	82
Taint ...	2	4,478	...	...	...	...	2	4,478
Uræmia ...	...	...	1	50	...	...	1	50
Wasted Conditions	1	351	9	61	2	79	12	491
Totals	3,928	275,706	639	5,313	394	6,340	4,961	287,359

TABLE L.

Shows the number of the different kinds of Animals Slaughtered at the Public Slaughter-houses each month during 1935, also the numbers of their carcasses found to be Diseased or Unsound, and the weight of each class seized and destroyed.

MONTH	Animals Slaughtered				Numbers of their Carcasses Diseased or Unsound				Weight (in lbs.) condemned from Carcasses of Animals Slaughtered on the Premises				
	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
1935													
January ...	1,235	31	2,604	485	359	1	225	13	20,256	5	316	108	20,685
February ...	1,114	16	2,070	421	324	3	192	20	16,776	61	528	368	17,753
March ...	1,122	23	1,966	419	310	2	132	21	18,082	163	442	192	18,879
April ...	1,246	25	1,926	449	352	1	102	25	24,499	...	275	434	25,208
May ...	1,289	9	2,213	352	386	2	93	25	21,582	...	289	244	22,115
June ...	1,101	7	2,000	262	314	...	60	6	13,797	...	124	160	14,081
July ...	1,157	14	2,141	219	310	1	57	25	16,651	154	243	449	17,497
August ...	1,192	11	2,347	222	338	...	90	25	20,578	...	192	211	20,981
September ...	1,218	11	2,497	357	413	1	156	48	28,300	1	86	1,185	29,572
October ...	1,384	12	2,808	611	467	3	180	49	32,337	59	233	854	33,483
November ...	1,303	12	2,430	537	364	4	160	59	23,844	181	207	411	24,643
December ...	1,522	17	2,628	737	439	..	184	66	26,465	...	232	1,598	28,295
Totals ...	14,883	188	27,630	5,071	4,376	18	1,631	382	263,167	624	3,167	6,214	273,172

TABLE LI.

Shews the number of the different kinds of Carcasses, dressed and undressed, brought to the Slaughter-houses, each month during 1935, with the numbers found to be diseased or unsound, and the weight of each class seized and destroyed on that account.

MONTH	Carcasses brought in				Numbers of them Diseased or Unsound				Weight (in lbs.) Seized and Condemned from Carcasses brought in				
	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
1935													
January ...	215	...	267	17	1	...	17	1	87	...	162	2	251
February ...	242	...	496	21	8	...	21	...	1,708	...	479	...	2,187
March ...	288	5	588	43	6	...	15	...	296	...	348	...	644
April ...	215	5	613	40	7	...	11	1	330	...	132	77	539
May ...	205	3	676	30	4	...	5	...	783	...	133	...	916
June ...	236	3	669	43	3	...	6	...	560	...	170	...	730
July ...	234	1	447	24	4	2	1	...	123	101	45	...	269
August ...	328	1	697	33	3	...	4	...	91	...	45	...	136
September ...	250	...	288	20	6	...	3	1	1,352	...	78	12	1,442
October ...	236	1	341	56	3	...	6	1	766	...	89	20	875
November ...	234	...	397	82	2	...	10	1	4,592	...	150	15	4,757
December ...	206	...	335	10	8	...	18	...	1,126	...	315	...	1,441
Totals ...	2,887	19	5,814	419	55	2	117	5	11,814	101	2,146	126	14,187
Table L.	14,883	188	27,630	5,071	4,376	18	1,631	382	263,167	624	3,167	6,214	273,172
Total of Tables L. and LI.	17,770	207	33,444	5,490	4,431	20	1,748	387	274,981	725	5,313	6,340	287,359

TABLE LII.

The following is a synopsis of the organs seized and condemned in addition to the foregoing at the Slaughter-houses for the full year :—

CATTLE ORGANS		SHEEP ORGANS		PIGS' ORGANS	
Cows' Udders ...	1,473	Livers ...	23	Udders ...	29
Livers ...	2,182	Plucks ...	604	Plucks ...	175
Lungs ...	2,956	Kidneys ...	667	Kidneys ...	144
Hearts ...	1,044	Lungs ...	977	Livers ...	101
Kidneys ...	2,384			Lungs ...	42
Heads ..	967	Total ...	2,271		
Tongues ...	996			Total ...	489
Skirts ...	2,321				
Total ...	14,323				

TINNED AND FROZEN MEAT SEIZED FOR DECOMPOSITION.

Tinned Meat ...	...	36 lbs.
Frozen Ox Livers ...	...	61 „
Frozen Meat ...	...	188 „
Total ...	...	285 lbs.

In addition to above 4,478 lbs. of Frozen Meat were seized on account of Taint

The number of Carcasses wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

YEAR	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Pigs	Total
1931	190	1,239	16	618	...	...	88	2,151
1932	263	1,223	22	746	1	...	92	2,347
1933	236	1,399	17	895	2	...	93	2,642
1934	309	1,281	17	831	1	...	125	2,564
1935	287	1,520	21	985	1	...	107	2,921

Statement shewing number of Animals Slaughtered, Wholly Condemned, Partially Condemned, and Weight (in lbs.) of Meat Condemned during the year 1935 :—

Class of Animal.		NUMBER OF ANIMALS.			Weight (in lbs.) of Condemned Meat.
		Slaughtered.	Wholly Condemned.	Partially Condemned.	
Cattle ...	...	15,071	280	4,114	263,791
Sheep ...	...	27,630	36	1,595	3,167
Pigs ...	...	5,071	25	382	6,214

TABLE. LIII.

The totals for the years 1919 to 1934 were:—

Year.	Carcasses Examined.				Numbers Diseased or Unsound.				Weight (in lbs.) of Meat Seized and Condemned.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1919	19,743	268	38,156	4,381	463	45	228	95	135,692	2,328	8,281	1,494	147,795
1920	20,933	250	29,795	2,386	627	51	170	58	174,715	2,955	6,707	5,931	190,308
1921	17,914	182	26,357	2,717	633	32	214	52	144,858	2,278	9,353	4,572	161,061
1922	18,825	207	31,139	4,199	879	38	350	120	188,971	1,762	13,537	6,974	211,244
1923	18,756	138	26,286	3,570	958	33	318	113	219,803	2,022	12,319	8,362	242,506
1924	18,276	184	25,691	4,037	1,382	18	485	242	209,771	714	13,219	9,875	233,579
1925	18,139	198	25,831	3,669	1,561	11	344	141	165,533	578	8,321	5,449	179,881
1926	17,469	145	28,416	2,586	3,161	22	523	127	203,663	1,043	8,491	5,605	218,802
1927	18,224	147	33,983	3,058	3,263	28	778	182	184,577	949	8,191	3,943	197,660
1928	19,328	126	31,697	4,171	2,801	19	1,262	298	163,617	1,115	6,920	6,741	178,393
1929	18,244	126	31,971	3,443	3,482	29	1,682	179	160,319	639	7,099	3,404	171,461
1930	18,689	88	31,590	2,996	3,653	19	1,133	299	170,738	328	9,144	4,510	184,720
1931	18,255	90	31,915	3,640	3,831	10	1,321	229	194,921	311	8,541	5,396	209,169
1932	15,847	134	36,484	4,158	4,723	14	2,522	253	205,963	447	6,033	4,383	216,826
1933	15,594	116	34,754	4,189	5,031	19	2,468	312	215,788	408	3,824	5,686	225,706
1934	16,016	201	33,285	4,870	4,391	22	2,369	520	250,083	898	4,982	5,556	261,519

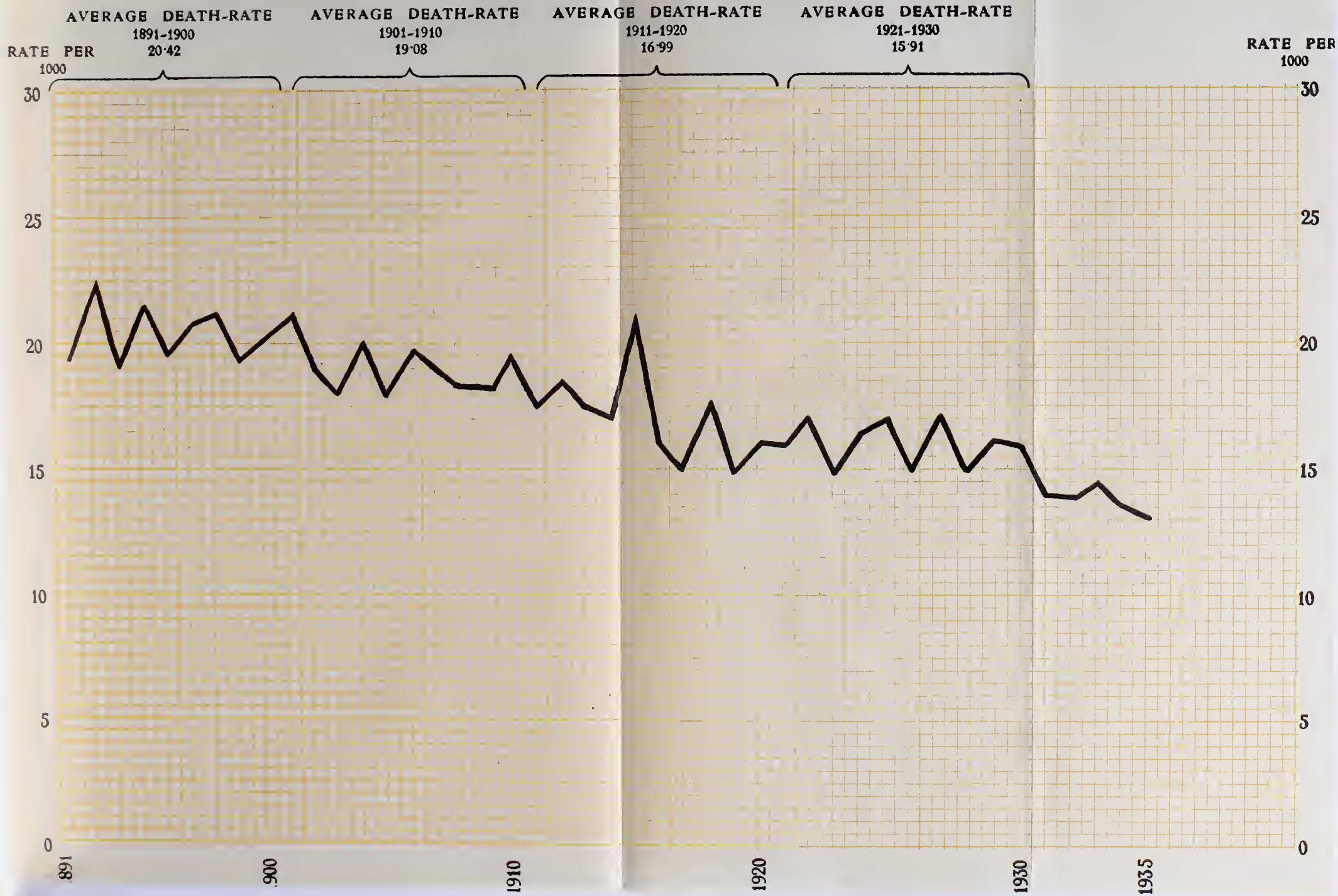
CITY OF DUNDEE

1

DEATH RATE per 1000 Population

(at all ages and from all causes)

1891-1935



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TASMANIAN

1891

1891

1891-1892

1891-1892



CITY OF DUNDEE

2

INFANT MORTALITY

INFANT DEATHS (under 1 Year) PER 1000 BIRTHS

1891-1935

Average Infant Death-Rate
1891-1900

176

Average Infant Death-Rate
1901-1910

155

Average Infant Death-Rate
1911-1920

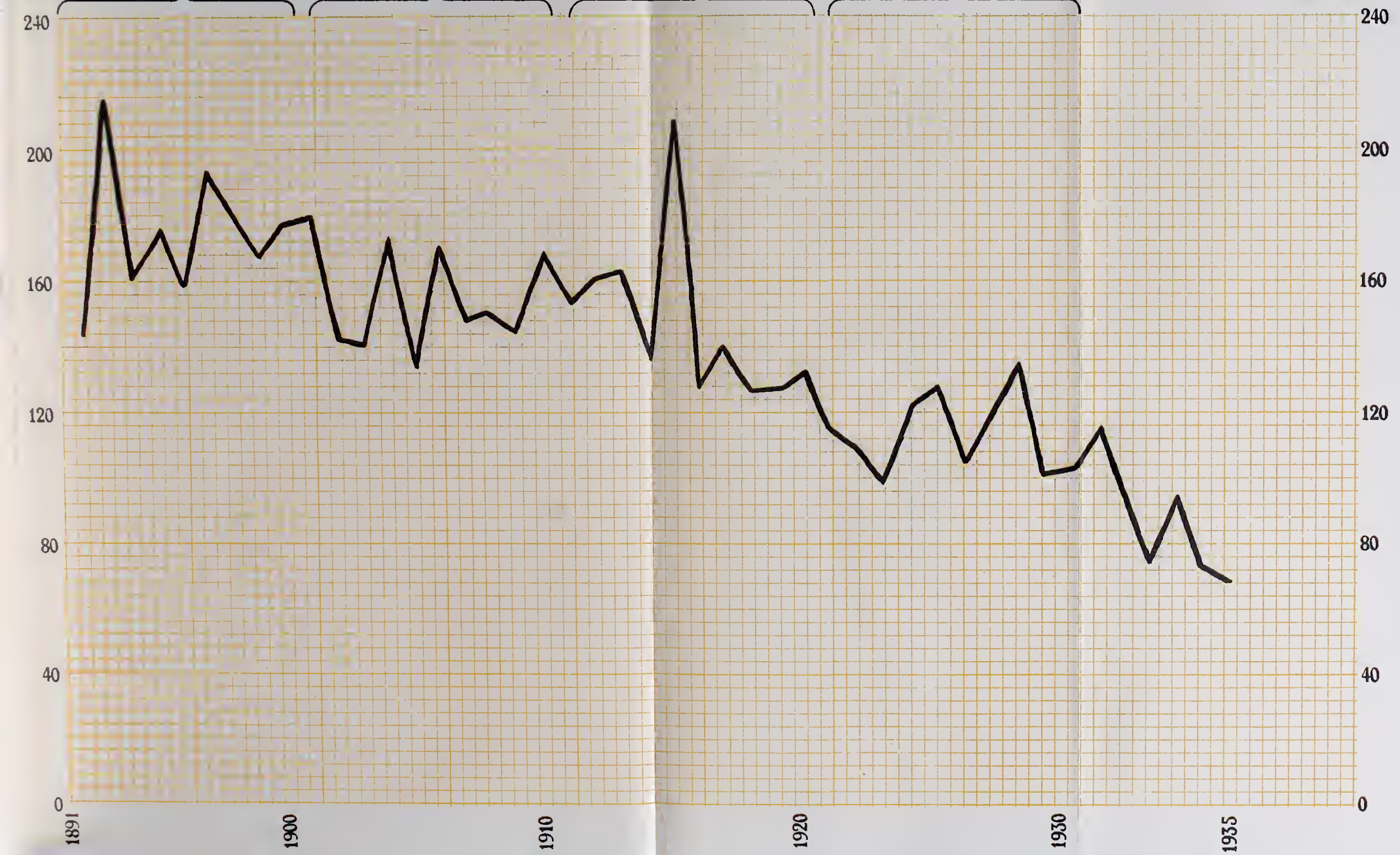
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Average Infant Death-Rate
1921-1930

113

RATE PER
1000 BIRTHS

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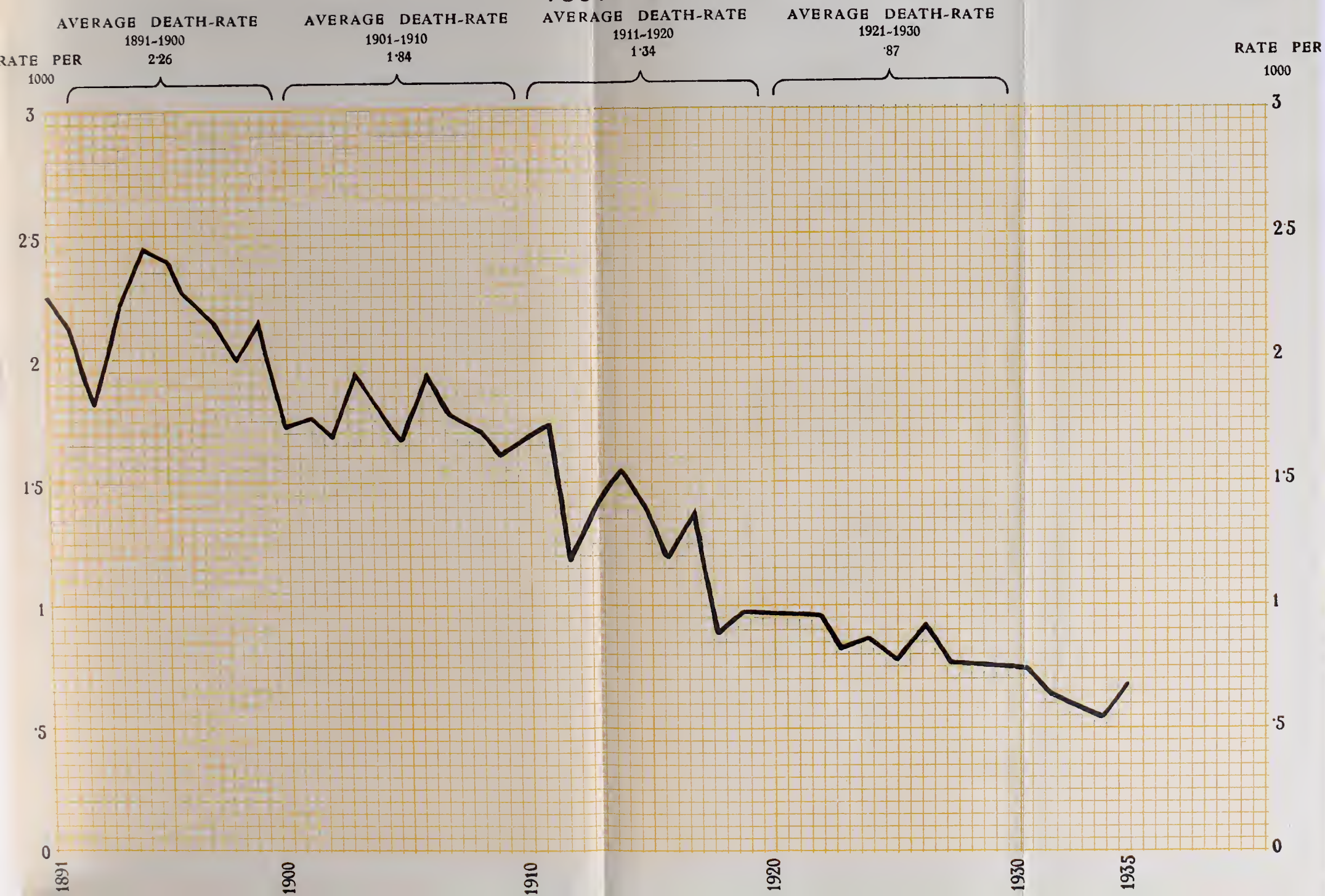
CITY OF DUNDEE

PULMONARY TUBERCULOSIS

3

DEATH RATE per 1000 Population

1891-1935



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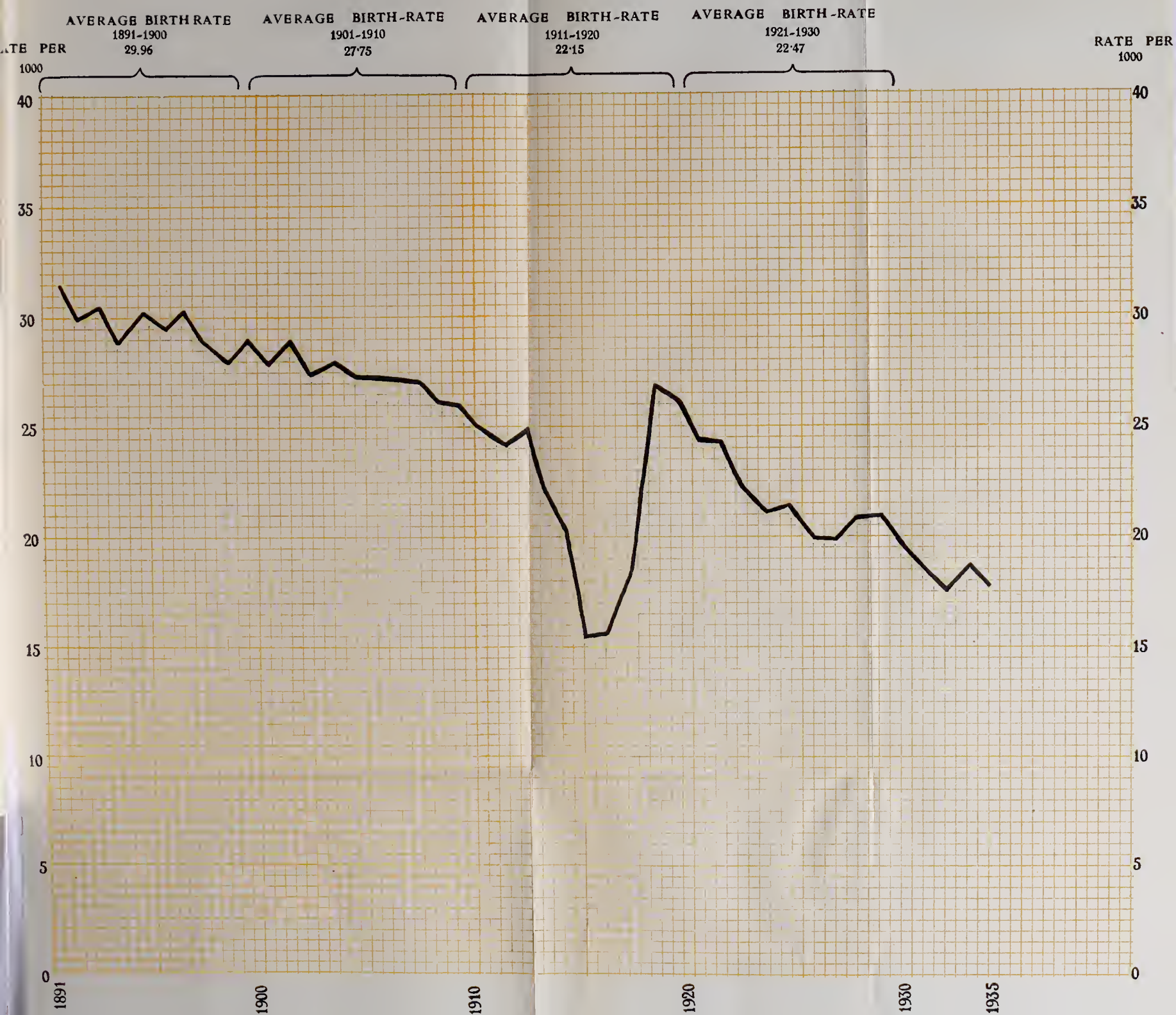


CITY OF DUNDEE

4

BIRTH RATE per 1000 Population

1891-1935



BIRTH RATE

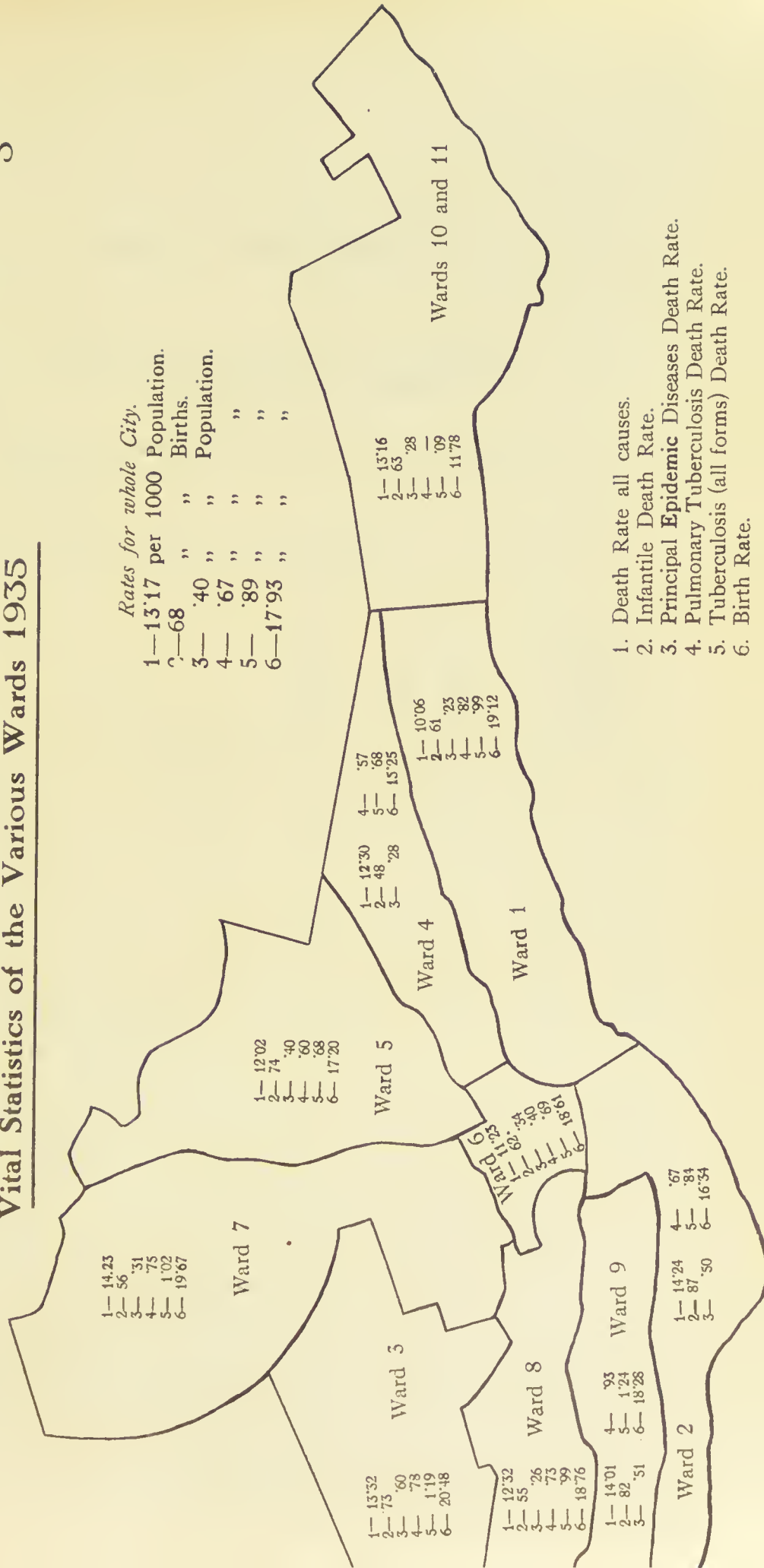
PER 1,000 BIRTHS - 1900-1910
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910



CITY OF DUNDEE.

Vital Statistics of the Various Wards 1935

5



KING'S CROSS HOSPITAL.

Report by DR. JAMES A. CUTHBERT,
Senior Resident Medical Officer.

During the year under consideration, 1,463 patients were admitted to the Hospital.

The following Table shows the numbers of all diseases according to the notifications or intimations:—

Disease	In Hospital 31st Dec., 1934	Admitted during year.	Discharged during year.	Died during year	Remaining in Hospital on 31st Dec., 1935
Diphtheria and Membranous					
Croup,	36	426	401	15	46
Erysipelas,	5	69	63	7	4
Scarlet Fever,	49	528	537	4	36
Enteric Fever,	1	5	5	1	—
Measles,	39	66	93	12	—
Whooping Cough,	10	80	81	8	1
Chicken-pox,	—	37	29	1	7
Cerebro Spinal Fever,	—	14	8	4	2
Encephalitis Lethargica,	—	—	—	—	—
Ophthalmia Neonatorum,	—	7	5	1	1
Pneumonia, Lobar }	14	100	89	12	13
Pneumonia, Brocho }					
Puerperal Fever,	5	59	58	4	2
Venereal Disease,	2	—	2	—	—
Dysentery,	1	13	12	—	2
Bronchitis,	7	20	21	3	3
Vulvo vaginitis,	—	12	9	—	3
Scarlet Fever with Diphtheria,	1	2	3	—	—
Measles with Whooping Cough	2	3	5	—	—
Gastro-Enteritis,	2	1	3	—	—
Whooping Cough with Dysen- tery,	1	—	1	—	—

Anterior Poliomyelitis,	1	—	1	—	—
Tonsillitis,	—	1	1	—	—
Scarlet Fever with Whooping Cough,	—	2	1	1	—
Scarlet Fever with Measles, ...	—	1	1	—	—
Scarlet Fever with Chickenpox,	—	4	2	—	2
Diphtheria with Chickenpox,	—	1	—	1	—
Pneumonia with (?) Whooping Cough,	—	3	3	—	—
Bronchitis with (?) Whooping Cough,	—	1	1	—	—
Mumps,	—	4	4	—	—
Food Poisoning,	—	2	2	—	—
Corneal Ulcer,	—	1	1	—	—
Pneumonia with (?) Scarlet Fever,	—	1	—	—	1
Totals,	176	1,463	1,442	74	123

Average Daily Number of Patients,	121.2
Highest Daily Number of Patients,	203 Jan. 18
Lowest Daily Number of Patients,	52 Aug. 12

Number of Patient Days, 44,258.

There were 74 deaths, giving a Hospital Case Mortality of 5.08%.

SCARLET FEVER

Of the 549 cases notified as scarlet fever or scarlet fever and an intercurrent disease discharged during the year the diagnosis was confirmed in 496 cases. Amongst the 53 erroneously diagnosed, the following conditions were noted :—

Erythema (food, teething and toxic rashes), ...	17 (1 died)
Tonsillitis,	14
Diphtheria,	7 (1 died)
Bronchitis,	4
Broncho pneumonia,	1 (died)
Chickenpox,	3
Measles,	2
Whooping Cough,	1 (died)

To the 496 cases in which the diagnosis was confirmed must be added 14 cases of scarlet fever notified as follows :—

Diphtheria, 9 (4 had double infection). Pneumonia 2, and one each of puerperal fever, mumps, measles, bringing the total to 510 cases.

Of these patients, 11 had an intercurrent infection, namely diphtheria 9, chickenpox 1, puerperal infection 1.

There was one death, giving a case mortality of 0.19%. The fatal case was admitted from a fever hospital outwith Dundee for operative treatment in scarlatinal mastoiditis. Death occurred from lobar pneumonia three days after the operation.

The following are the principal complications which were noted :—

Otorrhœa,	43 cases	8.43%
Nephritis,	12 cases	2.35%
Arthralgia and Arthritis,	9 cases	1.76%
Rhinitis (Purulent),	86 cases	16.86%
Adenitis,	73 cases	14.31%

Tonsils and Adenoids were removed in 12 cases or 2.35%. Mastoidectomy was performed in 11 cases or 2.15% (2 patients had double mastoidectomy).

Relapse occurred in 3 cases or 0.6%.

Antitoxic serum was administered to 221 cases or 43.25%.

Most of the cases were of the mild simple type of disease. There were, however, five of the toxic and one of the septic types, all of which were treated with antitoxic serum administered intramuscularly or intravenously or both, and all recovered.

DIPHTHERIA

The diagnosis was confirmed in 237 of the 420 cases notified as suffering from diphtheria or diphtheria with intercurrent infection and discharged during the year. Bacteriological evidence only was present in 33 cases who were regarded as "carriers," and the remaining 150 were found to be suffering from other conditions, among which the following were noted :—

Acute Follicular Tonsillitis,	105
Bronchitis and Laryngitis,	10 (1 died)
Scarlet Fever,	9
Vincent's Angina,	4
Bronchopneumonia,	2 (1 died)
Agranulocytic Angina,	1 (died)
Enteritis and Marasmus,	1 (died)

The addition of 10 cases of diphtheria erroneously diagnosed (scarlet fever 7 (1 died), whooping cough 1, pneumonia 2), and of 8 cases who suffered from diphtheria in addition to the disease notified or intimated (scarlet fever 5, whooping cough 1, pneumonia 2, one died) brings the total to 255 clinical cases.

Seventeen of these patients had an intercurrent infection, namely, 9 scarlet fever, 3 bronchopneumonia, 4 whooping cough.

There were 14 deaths ascribed to diphtheria. The fatality rate calculated on actual clinical cases was 5.49%.

Fatal Cases.

Four deaths occurred in patients who first came under treatment on or after the fourth day of disease, and one of these walked in suffering from early generalised paresis due to an untreated attack of diphtheria six weeks before. One case of laryngeal diphtheria with pneumonia and marasmus had tracheotomy performed and died 19 days later.

Five cases died within 36 hours of admission.

A definite increase in the number and virulence of the cases of diphtheria infection admitted to hospital was noted from August to the end of the year, during which ten of the deaths occurred. In no case has the "gravis" strain of organism been isolated, and the clinical response to the administration of antitoxin appeared to be quite satisfactory in all but one case, which proved to be an infection with a mitis strain. The toxic effects upon the myocardium especially were most marked in these cases, although antitoxin was administered in doses generally accepted as adequate and in every possible case by the intravenous as well as the intramuscular route.

The following particulars of the fatal cases occurring from August may be of interest :—

Infection	Age	Number of Days Ill.	
		On Admission	At Death
1. Faucial	8	3	10
2. Faucial,	8	2	2
3. Faucial,	18	3	13
4. Faucial,	9	3	4
5. Faucial, Laryngeal,	12	2	2
6. Faucial,	9	3	7
7. Faucial, Nasal, Laryngeal	6	4	5
8. Faucial, Nasal,	5	2	12
9. Generalised Paresis,	24	about 42	about 44
10. Nasal, Faucial,	7	2	16

Type of Disease.

	No of Cases	No. of Deaths
Faucial,	214	7
Faucial and Laryngeal,	9	3
Laryngeal,	9	1
Faucial and Nasal,	12	3
Nasal,	11	...
	<hr/> 255	<hr/> 14

Laryngeal Diphtheria.

No surgical interference of any kind was required in cases of laryngeal diphtheria except in the fatal case with pneumonia and marasmus.

Antitoxin Administration.

No change has been made in the manner of estimating the required dose of antitoxin, and therefore some indication of the severity of the cases will be obtained from the following table of doses :—

Up to 6,000 units,	47	18.4%
6,000—10,000 units,	86	33.7%
10,000—20,000 units,	65	25.5%
20,000—30,000 units,	25	9.8%
30,000—50,000 units,	25	9.8%
Over 50,000 units,	7	2.8%

More antitoxin has been administered intravenously, and this route is particularly useful for obtaining rapid effects especially in cases of laryngeal diphtheria and also when a faucial infection is seen to be spreading rapidly. The fatal cases, excluding the one late untreated case, were given an average of 46,154 units. In ten of these, roughly two-thirds of the dose was administered intravenously. Of the recovered cases, 17 or 7% received antitoxin by the intravenous route.

The paralysis rate was 10%.

Tonsils and adenoids were removed in three cases for treatment of a chronic carrier state.

Mastoidectomy was performed in one case who developed catarrhal otitis media.

Comments.

The diphtheria "scare" of August-September had the effect of increasing greatly the admission of suspects and of stimulating the interest of parents in the active immunisation of their children. A clinic for the administration of a suitable diphtheria prophylactic is conducted at the hospital on Friday evenings at 6 p.m. The material used is charged at cost price to those who can afford to pay.

There is still an unfortunate tendency on the part of some parents to regard lightly the occurrence of sore throats in their children and delay in treatment which proved fatal has undoubtedly occurred in a few cases. Careful inquiry into the fatal cases and their condition on admission strongly suggest an earlier onset than is indicated in the table given above.

A reminder of the complete unreliability of one and even two negative results from swabbing is necessary, especially as there has been found, in Dundee, at least one case of diphtheria the organisms from which could not be cultivated on the ordinary inspissated serum medium, and required more elaborate and lengthy bacteriological technique. The hospital is prepared to admit at any time for observation without previous swabbing any case in which there is reasonable suspicion of diphtheria.

POST-PARTUM AND POST-ABORTUM INFECTION

The diagnosis of post-partum or post-abortion infection was confirmed in 48 of the patients so notified, discharged during the year. The addition of one case notified as scarlet fever brings the total to 49.

The corrected diagnosis in the remaining 14 cases was:—

Mastitis,	3
Thrombophlebitis,	2
Incomplete Abortion,	3
Lobar Pneumonia,	1
Scarlet Fever,	1
Influenza,	1
Secondary Anæmia,	1
Status Epilepticus and Pyelitis,	1
Re-admission,	1

Three of the accepted cases died, giving a case mortality of 6.1%.

Source of Infection.

Classification according to the place of confinement or abortion shows the following:—

In the patient's home in Dundee,	17 cases
In Institutions in Dundee,	18 „
In the patient's home outwith Dundee,	14 „
In Institutions outwith Dundee,	Nil

Post-Partum Infection.

There were 45 cases, of whom 3 died. Age of the mother:—

Age in Years	15—19	20—29	30—39	40+	Totals
Recovered,	4	18	20	0	42
Died,	0	1	2	0	3
	—	—	—	—	—
Totals,	4	19	22	0	45

Hospital Death-Rate=6.6%.

Number of Confinements.

1st Confinement,	19 cases or 42.2%
2nd, 3rd or 4th Confinement,	15 cases or 33.3%
5th Confinement or over,	11 cases or 24.4%

45 cases

In three cases the mother was unmarried.

Stay in Hospital.

Of those who recovered, the average stay in hospital was 32 days. The longest stay was 111 days and the shortest 9 days.

Of those who died, the average stay was 3.6 days, the longest 5 days and the shortest 36 hours.

Nature of the Confinement.

Normal Confinement,	20 (twin births 2) (one death)
Instrumental Delivery,	13 (twin births 2) (two deaths)
Retained products of conception,	6
Abnormal presentation,	2
B.B.A.,	4
<hr/>	
Total,	45

Damage to Soft Parts.

In 27 cases or 60% there was some degree of damage to the soft parts. Cervical laceration occurred along with perineal damage in 9 of these cases.

Clinical Types of Infection.

Group 1.—Cases in which the infective process was localised in the uterus and/or external genitalia.

There were 24 of these cases and all recovered.

The results of bacteriological investigation by uterine cultures were as follows :—

Hæmolytic Streptococci,	5
Non-hæmolytic Streptococci,	4
Non-hæmolytic Streptococci and other organisms (Colon Bacilli, Staph., etc.),	2
Staphylococci, B. Coli., etc.,	13

Group 2.—Cases in which the infection spread through or beyond the uterus to the appendages, cellular tissues or peritoneum but which remained non-septicæmic.

There were 18 of these cases and 2 of them died—a case mortality of 11.1%.

The results of bacteriological investigation by uterine cultures were as follows :—

Hæmolytic Streptococci,	7
Non hæmolytic Streptococci,	6
Staphylococci, Colon Bacilli, etc.,	2
Not examined,	3

Laparotomy and drainage of the peritoneal cavity was performed in four cases, and three of these recovered.

The two deaths in this group were both infections with streptococcus viridans. One patient had suffered from anæmia and albuminuria during her pregnancy (fourth) with much oedema and sloughing of the external genitalia. She was admitted from another institution extremely ill on the eighth day of the puerperium. Death occurred in 36 hours. Post mortem there was found a fragment of placental tissue retained and all the signs of profound secondary anæmia of long duration. The other case was admitted on the third day of the puerperium and the first day on which any abnormality was noted. Delivery was instrumental. On admission the patient was profoundly toxic, and within 36 hours showed signs of general peritonitis and jaundice was marked. Laparotomy was performed, and the peritoneal fluid contained streptococcus viridans. Death occurred on the fifth day in hospital.

Group 3.—Cases in which the blood stream became infected.

There were three of these cases, two of which recovered. From their blood stream and from the uterus hæmolytic streptococci were obtained in pure culture. The death in this group was also an infection with streptococcus viridans. The case was admitted from another institution on the eighteenth day of the puerperium, having had symptoms from the day of confinement. The infecting organism was recovered from the uterus and the blood stream and also from a pleural effusion present on admission at the left base. The confinement had been difficult and delivery instrumental. Death occurred 36 hours after admission.

Summary of bacteriological findings in the three groups :—

Hæmolytic Streptococci,	13
Non-hæmolytic Streptococci,	12
Non-hæmolytic Streptococci + other organisms, ...	2
Staphylococci, Colon Bacilli, etc.,	15
Not examined,	3

POST-ABORTUM INFECTION

Seven cases admitted as post-abortion infection were discharged during the year. The diagnosis was confirmed in four cases all of which recovered. The unconfirmed cases were simple incomplete abortions.

Bacteriological findings were as follows :—

Non-hæmolytic Streptococci + other organisms,	1
Staphylococci, Colon Bacilli, etc.,	2
Not examined,	1

Urinary infection generally with coliform bacilli was present in 17 or 37.7% of all the above cases.

There is little upon which to comment in the consideration of the post-partum and post-abortion cases in general. Throughout the year they have been fewer in number and have yielded as a rule very well to the routine treatment which remains substantially the same. There is evidence of a gratifying response to the plea that these cases be sent to hospital for treatment as early as symptoms develop so that everything may be done to restore the mother to good health as quickly and completely as possible.

SURGERY

There were 51 operations performed in the theatre during the year. These included :—

Mastoid Operations :—

Schwartz,	14
Radical,	1
Bezold's Abscess,	1
Scraping and Repairing,	3
Lateral Sinus Thrombosis,	1
Tonsillectomy,	16
Laparotomy,	1
Dilation and Curettage,	3
Empyema,	2
Osteomyelitis,	1

JAMES A. CUTHBERT, Senior Medical Officer.

TUBERCULOSIS.

Report by Dr J. H. HUNTER,
Chief Tuberculosis Medical Officer.

During the year 1935, the routine work of the Tuberculosis Section proceeded on the same lines as in previous years. Again I desire to acknowledge the very valuable assistance rendered by all members of the staffs of this section of the Public Health Institute and Ashludie Sanatorium, the medical officers and staffs of the various Public Health Services, the health visitors, the Royal Infirmary and other institutions interested in this work, whose co-operation has greatly assisted the furtherance of our work

The notifications of all forms of tuberculosis for 1935 are 394 against 349 for 1934, an increase of 45, of which 32 are males and 13 are females, 19 are pulmonary and 26 non-pulmonary. In pulmonary tuberculosis the increase is evident in age groups 25-45 in males and 5-25 in females. Of the 129 non-pulmonary notifications, 70 are males and 59 are females, increases of 24 and 2 respectively over the previous year's figures. The notifications of glands account for the greatest part of this increase, in males chiefly in age group 5-15, while age group 1-5 shows a smaller increase. The total increase is practically confined to these age groups and sex. Of the other types, meninges, and bones and joints, show considerable increases.

The attendances at the various clinics show little change and the work was satisfactorily carried on. The Artificial Sunlight clinic, which was previously run as two sessions 10 to 11 a.m. and 11 to 12 a.m., is now run as one continuous session, 10 to 12 a.m. This explains the reduction in the number of sessions when compared with the previous year. By this means overcrowding at the sessions was controlled.

I greatly appreciate the work done for children in Sidlaw Sanatorium and tender my thanks to the Medical Officer, Matron and Staff for their valuable co-operation. I visited the Sanatorium several times during the year and always found the children happy, well cared for and greatly benefited by their stay in the Institution.

In the year 1935, 394 cases of tuberculosis were notified—265 cases of pulmonary tuberculosis and 129 cases of non-pulmonary tuberculosis. Of these :—

157 cases were discovered at the Tuberculosis Section.

73 cases were notified by private practitioners.

10 cases were notified from Maryfield Hospital

122 notifications came from the Royal Infirmary.

1 notification came from King's Cross Hospital

3 notifications came from the Infant Hospital, Broughty Ferry.

2 notifications came from the Convalescent Home, Barnhill.

5 notifications came from Medical Officers outside the city.

21 cases came under the notice of the Department through the Registrar after death had taken place.

Pulmonary Tuberculosis.

During the year 265 cases of pulmonary tuberculosis were notified. The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	—	—	—
1- 5 years	...	8	4	12
5-15 ,,	...	31	41	72
15-25 ,,	...	25	31	56
25-45 ,,	...	43	42	85
45-65 ,,	...	23	11	34
65 years and upwards	...	2	4	6
	...	132	133	265

The following are the particulars as regards housing :—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1 ...	41	156	3.80
2 ...	128	615	2.40
3 ...	63	362	1.91
4 and upwards	14	81	1.44

In 19 cases home conditions were satisfactory.

Non-Pulmonary Tuberculosis.

During the year 129 cases of non-pulmonary tuberculosis were notified. The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	1	4	5
1- 5 years	...	14	10	24
5-15 ,,	...	35	23	58
15-25 ,,	...	9	12	21
25-45 ,,	...	6	5	11
45-65 ,,	...	5	4	9
65 years and upwards	...	—	1	1
		—	—	—
		70	59	129

The sites of the disease were as follows :—

	Under 1 year.		1-5 years.		5-15 years.		15-25 years.		25-45 years.		45-65 years. & upwards.		65 years & upwards.		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M. F.
Meninges	1	3	5	3	6	3	2	2	1	0	0	0	0	0	15 11
Abdomen	0	1	3	0	7	5	2	1	2	0	0	1	0	0	14 8
Glands	0	0	4	3	12	9	3	2	0	3	1	0	0	1	20 18
Joints	0	0	1	1	7	4	1	5	1	0	1	1	0	0	11 11
Spine	0	0	0	2	0	2	0	1	1	1	0	0	0	0	1 6
Other Forms	0	0	1	1	3	0	1	1	1	1	3	2	0	0	9 5
Totals	1	4	14	10	35	23	9	12	6	5	5	4	0	1	70 59

The following are the particulars as regards the housing of the non-pulmonary cases :—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1	... 12	53	4.41
2	... 62	299	2.41
3	... 27	146	1.80
4 and upwards	11	77	1.75

In 17 cases the home conditions were satisfactory.

Tuberculosis Clinic.

During the year 392 cases were enrolled as compared with 482 in the year 1934. Of these 86 were found to be suffering from distinct phthisis, (55 males and 31 females) ; 50 were found not to have the disease ; in 224 cases the signs were somewhat indefinite but these cases were regarded as the “ pre-tuberculosis stage ” ; 31 were found to be suffering from other forms of tuberculosis and 1 was not examined.

There were 236 contacts examined ; 2 were found to be suffering from pulmonary tuberculosis ; 3 were found to be suffering from other forms of tuberculosis ; 134 were suspicious and are being kept under observation, and the remaining 97 were found to be negative.

Of the 86 cases of definite phthisis, 18 were previously notified and 68 were notified from the clinic for the first time.

The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	—	—	—
1- 5 years	...	2	—	2
5-15	„	13	5	18
15-25	„	11	8	19
25-45	„	16	17	33
45-65	„	12	1	13
65 years and upwards		1	—	1
	...	55	31	86

The attendances at the tuberculosis clinic were as follows :—

		Insured.	Non-Insured.	Total.
January	... ..	471	382	853
February	... ..	452	392	844
March	... ..	455	485	940
April	... ..	493	369	862
May	... ..	503	344	847
June	... ..	444	284	728
July	... ..	432	208	640
August	... ..	505	220	725
September	... ..	524	296	820
October	.. ..	556	306	862
November	. ..	528	322	850
December	. ..	525	303	828
		5888	3911	9799

Artificial Sunlight.

During 1935, 178 patients attended the artificial sunlight clinic. Of these, 88 were males and 90 were females.

		Males.	Females.	Total.
No of Attendances	... ..	3,301	2,980	6,281
No of Sessions—	295.			

Laboratory Work.

During the year, 371 specimens of sputum were examined, with the following results :—

		Positive.	Negative.
117 for general practitioners	..	27	90
254 for clinic patients	... ..	52	202

X-Ray Department.

During 1935, 371 radiograms and 397 screen examinations were carried out.

Of the 371 radiograms :—

341 were for the Tuberculosis Section.

14 were for Maryfield Hospital.

2 were for King's Cross Hospital.

14 were for the V.D. Section.

371

Chest	Other Parts	Total
329	42	371

Artificial Pneumothorax

During the year there were 43 attendances at the Pneumothorax Clinic. Of these 38 were males and 5 were females.

Sidlaw Sanatorium.

During the year there were altogether 67 cases from the City recommended for treatment in this Institution. 28 of these were males and 39 were females. There were 60 cases discharged (30 males and 30 females). Average stay in the Institution—165 days.

The following table shows the result of the treatment in these cases :—

Improved	No Improvement
36	24

J. H. HUNTER, M.B., D.P.H.
Chief Tuberculosis Officer.

ASHLUDIE SANATORIUM.

Report by Dr G. WALKER.

During the year, 174 patients were admitted and 173 discharged, including 40 who died. The following are the relevant details:—

Admissions—	Males	Females	Children under 12	Total
Tuberculosis of Lungs and Pleura	70	67	1	138
Non-Pulmonary Tuberculosis,	4	14	4	22
Non-Tuberculous,	3	11	—	14
Discharges,	61	65	7	133
Deaths,	18	22	—	40

Number of beds occupied on December 31st, 1935,.....	119
Highest daily number of patients,	130
Lowest daily number of patients,	117
Average daily number of patients,	124
Average residence of those discharged,	248 days
Average residence of those who died,	222 days

Age and Sex Distribution of Admissions.

Age	Pulmonary		Glandular		Bone and Joint		Other Forms		Non-Tuberculous	Total
	M.	F.	M.	F.	M.	F.	M.	F.		
0—5,	—	—	—	1	1	2	—	—	—	4
5—15,	6	4	2	1	1	2	—	—	2	18
15—25,	21	22	—	1	—	5	1	1	2	53
25—35,	19	20	—	—	—	1	—	—	4	44
35—45,	12	16	—	1	—	2	—	—	5	36
45—60,	13	4	—	—	—	—	—	—	1	18
Over 60,	—	1	—	—	—	—	—	—	—	1

Condition on Discharge.

	Males	Females	Children
Quiescent,	5	3	1
Much Improved,	12	12	4

	Males	Females	Children
Improved,	30	28	1
Unimproved,	6	9	—
Worse,	4	3	1
Died,	18	22	—
Non-Tuberculous,	2	9	—
	<hr/> 77	<hr/> 86	<hr/> 7

Two cases were transferred to Dundee Royal Infirmary for operation and one to King's Cross Hospital as (?) enteric fever following a pilgrimage to Lourdes.

Admissions—Pulmonary.

Cases in all stages of pulmonary tuberculosis were admitted, but again too many showed advanced disease on admission so that isolation and nursing were the only benefits derived from the sanatorium, treatment being directed to the relief of symptoms in the last months of life. There are many recognised reasons for this state of affairs, but surely it shows inadequate appreciation by the public of the advantages of sanatorium treatment in early cases, when we have several patients admitted only after domestic strife has rendered life at home unbearable. Prejudice and ignorance on the subject of tuberculosis are still obstacles in the way of bringing early cases under treatment.

Of 111 pulmonary cases admitted for the first time, 15 were suitable for active treatment directed against the local lesion, 15 were not requiring such treatment, and 81 were unsuitable for active treatment on account of the type or extent of the lung disease.

Pleurisy with effusion accounted for 7 admissions, and this figure seems to be too low. It should be emphasised that early admission to the Sanatorium is essential in such cases in order that collapse therapy may be begun before adhesions prejudice the result when there is active pulmonary disease. Where there is no apparent activity in the lung a course of Sanatorium treatment minimises the danger of a future breakdown with pulmonary tuberculosis.

Non-Pulmonary.

Twenty-two cases of non-pulmonary tuberculosis were admitted, including 3 patients with spinal caries, making a total of 9 cases of spinal caries under treatment at the end of the year. Prolonged immobilisation in plaster or on frames is necessary for such cases, and beds so occupied are not available again for approximately three years.

Three cases of bone and joint disease came under treatment only after the quackery of the bonesetter had proved unavailing.

Non-Tuberculous.

These were patients admitted for investigation and diagnosis, and included bronchiectasis, carcinoma of lung, pernicious anæmia, hypochromic anæmia and osteitis fibrosa cystica.

Discharges and Deaths.

During the year, 40 patients died, 19 within three months of admission. The shortest residence prior to death was 1 day. The cause of death was as follows :—

Pulmonary Tuberculosis,	33 cases
Terminal Tuberculous Meningitis,	3 „
Abdominal Tuberculosis,	1 „
Tuberculosis of Femur with Sinuses,	1 „
Carcinoma of Lung (verified at autopsy),	1 „
Cerebral Tumour (verified at autopsy),	1 „

In 11 cases no evidence of tuberculosis was found, but this conclusion can only be reached in some cases after a period of observation and investigation, so that admission is necessary in doubtful cases.

Treatment—Pulmonary Tuberculosis.

Sanatorium treatment aims at arrest of the disease and restoration of the working capacity of the patient, but often fails to achieve this because the lungs are so badly damaged when the patient is admitted that arrest is impossible and attention is directed towards improving the resistance and general condition of the patient as well as training him in personal hygiene so that when discharged he can regulate his life to the best advantage and does not constitute a danger to others.

Collapse therapy, especially artificial pneumothorax, offers the best chance of permanent arrest of the disease, but the opportunities for its employment are limited. This was attempted in 17 cases, in 5 of which no space was found. The treatment was abandoned in two cases as the collapse was not effective, and in one case gelatinothorax was substituted. The remainder are still under treatment.

Phrenic evulsion was performed in 11 cases either for unilateral disease showing marked retraction and distortion of the mediastinum or to terminate pneumothorax treatment.

Oleothorax was used for one case of pyopneumothorax with excellent results, but in two cases with bronchopleural fistula, treatment by pleural lavage and injection of thoragel gave better results than oleothorax.

Nine patients received treatment by the intravenous injection of a gold salt. This was discontinued in 3 cases after a few injections owing to excessive reactions. Gold therapy is valuable in a limited number of cases, but can be dangerous and give rise to serious toxic effects in susceptible individuals. It should be used only under careful supervision in hospital, and is unsuitable for domiciliary treatment.

Non-Pulmonary.

Conservative treatment was carried out as far as possible. Nine cases of spinal caries were under treatment during the year, and in none of them did psoas abscess occur. No operation for spinal fusion was done. Excision of the knee joint was performed in one case, and amputation of the leg was necessary in a case of multiple osseous lesions which were threatening life from sheer weight of toxæmia.

The after-care of bone and joint cases who are discharged after completing a course of Sanatorium treatment will require consideration. It is advisable that they should attend an out-patient clinic where facilities for plaster work and consultation with a surgeon are available. At present, patients are asked to attend at Ashludie Sanatorium for removal of plasters.

Operation Theatre.

Including artificial pneumonthorax refills, 515 operative procedures were done, all under local anæsthesia except one case of amputation through the thigh for which general anæsthesia was used.

X-Rays.

1,138 screen examinations were made, and 678 films were taken during the year. The latter including 586 films of the chest and 92 of bones and joints.

Training of Nurses.

The Sanatorium is now recognised as a training school for the certificate of the Tuberculosis Association. Lectures are given in Anatomy, Physiology, Hygiene, Nursing and Tuberculosis.

In 1935, four sisters gained the certificate, and two nurses passed in Part 1 of the examination. One nurse failed in Part 1.

WESTGREEN MENTAL HOSPITAL.

REPORT by Dr W. TUACH MACKENZIE,
Medical Superintendent.

The number of patients on the Hospital Registers was, on 15th May, 1935, 614 (306 men and 308 women) and, on 15th May, 1936, 610 (305 men and 305 women).

During the year there were 71 admissions, 31 discharges and 44 deaths. The total number under treatment was 685 (338 male and 347 female), and the average daily number 617.7 (308.1 male and 309.6 female), the corresponding figures for the previous year being 302.6 and 304.9.

The Service Patients maintained by the Ministry of Pensions as private patients numbered 20 at the beginning and at the end of the year 21.

There are two Voluntary patients resident in the Hospital, one male and one female.

The rate-aided patients were chargeable as follows:—

	Male	Female	Total
City of Dundee,	299	299	598
County of Angus,	2	2	4
Other Districts,	4	4	8

Admissions.

The cases admitted during the year numbered 71.

The types of mental disorder among the admissions comprised chiefly the constitutional psychoses, e.g., Melancholia in 15 cases, in whom 9 cases exhibited active suicidal tendencies, dementia and schizophrenia 10, delusional psychoses 20, mania 4, confusional and delirious psychoses 10. The organic psychoses included those of General Paralysis—5 cases, and Lethargic Encephalitis—3. The congenital psychoses were represented by 4 mental defectives with active psychotic symptoms.

At the time of admission the patients had been ill for less than half a year in 50 per cent., from one-half to less than two years in 35 per cent., and for two years and upwards in 15 per cent., and their bodily condition was fair but below par in 60 per cent.; poor in 27 per cent.; and weak in 13 per cent.

Discharges.

The cases discharged numbered 31 (10 men and 21 women). Twenty-three were recovered, 6 improved, and 2 unimproved, the recovery rate being 32.4 per cent. of the number admitted, and in addition 8.5 per cent. being improved, or in all 40.9 per cent. had regained their health more or less completely.

It is well known, however, that the recovery rate in any mental hospital often varies considerably from year to year. The recoveries in a given year are derived partly from the admissions of the same year, and partly from those of previous years, and it will be readily seen that if in a given year there is an accumulation of recoveries combined with a fall in admissions, the recovery rate will be high, whereas in a year with converse conditions the recovery rate will be low. Another point which should be clearly realised nowadays in connection with the recovery rate in mental hospitals is that they receive the more serious cases of mental breakdown in the community, including the failures of treatment in private nursing homes, public clinics, observation wards, and the like.

Deaths.

Forty-four patients died during the year — 22 men and 22 women—the death-rate for the year, calculated on the average number resident, was 7.1.

The deaths were all due to natural causes, which were verified by post-mortem examination in every case in which the relatives granted permission.

Diseases of the heart and circulation were found to be the cause of death in 12 cases; diseases of the brain and nervous system, including general paralysis in 19 cases; acute diseases of the lungs in 4 cases; phthisis pulmonalis and other tubercular diseases in 3 cases and senile decay in 6 cases.

Of the patients who died, 3 were from 17 to 21 years of age; 2 from 26 to 30; 4 from 30 to 40; 8 from 40 to 50; 7 from 50 to 60; 10 from 60 to 70; 9 from 70 to 80; and 1 from 80 to 90.

General.

The usual statutory visits were made by H.M. Commissioners of the General Board of Control.

The general health of the patients has been satisfactory throughout the year, and, except for minor ailments and the usual recurring epidemic of influenza during the winter and spring months, which affected both patients and staff, there has been no serious illness.

The treatment of the patients has been carried on along the usual lines, and every opportunity was taken to give a trial to the latest remedies and approved methods. The treatment of General Paralysis by modern methods has again met with encouraging results.

The upkeep of the various buildings has been attended to as usual. Painting and redecoration throughout the Hospital have been carried on by the painters and patients who work with them.

Our department of Occupational Therapy is proving one of the most useful assets in the treatment of the patients employed. The work done is of a most excellent character, and obtains a ready sale, and Miss Beaton has proved herself to be a capable organiser and excellent instructor.

The systematic training of the nursing staff has been carried on as in former years. Lectures are given by the Assistant Medical Officers twice weekly, and practical ward demonstrations are given by the Matron and her Assistants. During the year 1 nurse and 5 male nurses passed the final examination of the Medico-Psychological Association, obtaining certificates for proficiency in mental nursing, and 8 nurses passed the Preliminary Examination required for the certificate. One nurse, who gained her R.M.P.A. certificate in 1935, has now passed the General Nursing Council Final Examination, and another has passed her Preliminary.

DENTIST'S REPORT

I have much pleasure in submitting to you my Dental Report of Dental Treatment carried out by me at Westgreen Mental Hospital for year to 31st December, 1935.

I made 50 visits to the institution during the year, and carried out the following treatment :—

Extractions—

With Local Anæsthetic,	274	Teeth
With General Anæsthetic,	23	Teeth
Fillings,	12	Teeth
Scalings and Cleanings,	263	Cases
Gum Treatments,	17	Cases
Silver Nitrate Treatment (to arrest dental caries), ...	42	Teeth Treated

The usual routine examination of the mouths was duly carried out during the year.

It is of interest to note that the patients readily submit themselves to the necessary dental treatment for the benefit of their health.

Patients on admission to the institution have their mouths examined, and the necessary dental treatment carried out as soon as the medical staff certify the patients fit to have dental treatment.

The health of the mouths is fair.

I would again take this opportunity of thanking the Medical Superintendent and his staff for the co-operation and help during my visits to the institution.

In view of the fact that I have been the Dental Surgeon to Westgreen Mental Hospital since the appointment was made in 1925, and the increased number of patients since that time, I would ask if the Convener and Members of the Public Health Committee would be good enough to favourably consider an increase in my remuneration.

(Signed) FRANK BERRY WHYTE,
L.D.S., St. Ands.

CHAPLAIN'S REPORT

Dear Dr Tuach Mackenzie,

I have the honour to submit my report for the year 1935-36.

The service in church on Sunday afternoon has been held regularly throughout the year, except for three Sundays during the winter when the weather was too stormy to allow the patients to attend.

Speaking generally, the patients have manifested the same continued interest in the service, taking part in it very reverently. In particular, they join very enthusiastically—most of them—in the praise. Here I must record my thanks to Mr Adams and Mr Chalmers who, through the weekly Choir Practices and their leading of the praise on Sundays, have rendered invaluable help. I have noted with much satisfaction and appreciation the excellent manner in which the arrangements for the services have been carried out by the Staff.

The weekly visits to the Admission and Hospital Wards, and the services held there for those who cannot attend the services in Church, have continued regularly and would appear to be appreciated.

May I call attention to the present inadequate system of lighting the Church, and express the hope that, when opportunity serves, some improvement may be effected in it.

In closing, I wish to renew the expression of my gratitude for the ready help and unvarying courtesy I receive from every member of the staff.

Yours faithfully,

(Signed) J. MACLEAN, Chaplain.

Farm and Garden.

The farms and garden, besides providing beneficial employment for the patients, and supplying the Hospital requirements of milk and vegetables, show a satisfactory profit as the result of the year's working.

The past year has been fairly satisfactory from a farmer's point of view, the crops were fairly good, the hay and turnips being exceptionally so, potatoes on the farms were a good crop and made better prices than in former years. The winter proved very trying on young stock lying out all the time, but since the grass came they have done very well. We had a good number of lambs considering the weather, perhaps the best we have ever had.

The Ayrshire herd is still doing very well. During the past year we have bred 66 heifer calves and 48 bull calves. We have got a very good market for our surplus stock, having sold roughly £800 worth during the year. The best price we got was for a bull calf, which we sold for £100. We also got a good price for two to go to Africa at £70 each.

Our cow Ivy still holds the record for an Ayrshire cow, in Scotland, and is now giving over nine and a half gallons of milk daily.

It may be of interest to note the difference between the Irish cows' milk yield and that of the Ayrshires.

In the month of February, 1921, from 58 Irish cows, we supplied 3,632 gallons of milk, in February, 1935, from 65 Ayrshire cows we supplied 6,635 gallons, after feeding 12 calves, an increase of 3,003 gallons in one month. This surely says a lot for the Ayrshire cow.

During the past year we supplied 84,111 gallons of milk, the cows averaged 1,003 gallons each, the heifers 892 each. At this date we have 241 head of Ayrshire stock on the farms.

WM. TUACH MACKENZIE,

Medical Superintendent.

MARYFIELD HOSPITAL.

REPORT BY Dr J. B. MACDONALD,

Medical Officer

During 1935, Maryfield Hospital continued its work as a general hospital under the Public Health Department.

On January 1st there were in Hospital 122 men, 147 women, 27 boys, and 24 girls; and there were admitted during the year 783 men, 773 women, 235 boys, and 221 girls. The total number of patients treated during the year was 2332.

The Hospital accommodation consists of 328 beds, and the average daily number of patients was 323. The smallest number on any one day was 287 and the largest 362.

An analysis of the discharges for the year shows the following diseases treated and the number of cases of each:—

Bone and Joint,	20
Circulatory,	331
Ductless Glands,	2
Infancy and Malformation,	29
Digestive,	182
Genito-Urinary,	73
General,	52
Infectious,	72
Malignant,	44
Nervous,	164
Senile,	120
Pregnancy and Parturition,	87
Respiratory,	262
Mental,	218
Skin,	232
Tuberculosis,	69
Injuries,	41

During the year 357 patients died, 20 being under the age of 10.

Three cases of Erysipelas, 7 of Pulmonary Tuberculosis, 2 of Dysentery, 1 of Diphtheria, and 3 of Ophthalmia Neonatorum occurred in Hospital and were notified to the Medical Officer of Health.

There were 65 cases of Pregnancy admitted during 1935. (This number does not include cases brought to hospital from outside following Pregnancy, and cases of Abortion.)

Of these 65 cases :—

- 3 were suffering from complication of Pregnancy,
- 10 were suffering from some other disease but were also pregnant,
- 56 remained until full term,
- 9 were discharged before confinement,
- 19 were kept in hospital after normal period of puerperium on account of some special reason.

During 1935 there were 85 operations performed in the Theatre. Those performed by Mr F. R. Brown, F.R.C.S., Visiting Surgeon, included :—

- 10 of Appendicectomy.
- 4 of Gastro-Enterostomy.
- 1 of Cholecystectomy.
- 1 of Colostomy.
- 1 of Partial Gastrectomy.
- 7 for Hernia.
- 1 for Hallux Valgus.
- 1 for Talipes Equino-Varus.
- 1 for Cervical Adenitis.
- 2 for Haemorrhoids.
- 1 for Removal of Papilloma by Diathermy.
- 3 Amputations.

Mr W. G. Campbell, F.R.C.S., who sometimes acted for Mr Brown, performed the following operations :—

- 1 of Appendicectomy.
- 1 of Cystostomy.
- 1 of Nephro-Lithotomy.
- 2 of Gastro-Enterostomy.
- 2 for Hernia.
- 1 for Bursitis.
- 1 Amputation.
- 1 Blood Transfusion.

Mr M. J. Gibson, F.R.C.S., Aural Surgeon, performed

- 2 Mastoidectomies.
- 2 Tonsillectomies.

There was an increase in the number of Gynæcological cases examined and treated. The operations performed by Dr R. C. Buist, LL.D., M.D., C.M., M.R.C.P., included :—

- 1 Round Ligament Suspension.
- 1 Hysterectomy.
- 1 Salpingo-Oophorectomy.
- 1 Oophorectomy with Sterilisation.
- 2 Dilatations with Curettage.
- 3 Cauterisations of Cervix.

Mr John M. Laburn, L.D.S., Honorary Dental Surgeon, visited the Hospital regularly and examined and treated unhealthy conditions of teeth and gums.

At the Preliminary Examination of the General Nursing Council for Scotland, junior nurses from Maryfield Hospital secured a total of 22 passes out of 26 subjects, and in the Final Examinations our Senior Nurses had 86 passes out of 96 subjects.

The following list shows the subjects taught during the year and the number of lectures given in each :—

Anatomy and Physiology,	70
Hygiene,	35
Practical, Part I.,	35
Practical, Part II.,	30
Dietetics,	15
Medical,	35
Surgical,	35
Gynæcology,	20
Cooking,	6
Bandaging,	6
Venereal Diseases,	6
Bacteriology,	6

Nurses undergoing training received individual attention from the Sister Tutor and had the privilege of attending certain operations and ante-natal examinations.

The Visiting Surgical and Medical Staff has been increased, and now includes :—

Professor Charteris, Medicine.
 Dr Buist, Gynæcology.
 Mr Brown, Surgery.
 Mr Gibson, Ear, Nose and Throat.
 Mr Laburn, Dental Surgery.
 Dr W. L. Kinnear, Diseases of Children.
 Dr Keay, Special Diseases.
 Dr Hunter, Tuberculosis.
 Dr A. MacGillivray, Eyes.
 Dr Macdonald, Medicine.
 Dr Emmerson, Anæsthetics.

During the year the two Resident Medical Officers had the assistance of two final year resident medical students who acted as clinical clerks.

Routine clinical work, including examinations of blood, urine, sputum, gastric contents, etc., was done in Hospital; and a temporary pathological laboratory was equipped with apparatus suitable for blood sugar estimations, sugar tolerance test, quantitative urine sugar estimations, blood urea estimations, urea clearance test, Van den Bergh test, Fragility R.B.C. test, Reticulocyte counts, blood groupings, and coagulation tests.

Special investigations and tests were carried out for us by the Bacteriological Department and the Pathological Department of Dundee Medical School, and *post-mortem* examinations were conducted by Professor Cappell and Drs Tudhope and Montgomery of the Pathological Department.

Patients requiring to be X-rayed were sent to Dundee Royal Infirmary or to the Public Health Institute, as the X-ray outfit which we so urgently require has not yet been installed.

During the year 104 men and 115 women were admitted into the Observation or Psychopathic Wards, a total of 219 patients. Of these, 6 died and 60 were certified and removed for treatment to Westgreen or to some other mental hospital. During the year, 82 patients were discharged outside relieved or cured, and 70 who were either convalescent or not certifiable were transferred to medical wards.

Several patients suffering from Dementia Paralytica (confirmed by Lange test) were inoculated with Ape Malaria kindly supplied through Dr R. C. L. Batchelor, M.A., M.B., D.P.H., F.R.C.S., of Edinburgh Royal Infirmary. The following are notes of the results in several of the cases :—

Case One.—Male, aged 40, was inoculated 29/8/35 and had first rigor (102 deg.) on 6/9/35. After 5 rigors (highest 103.6 deg.) the Malaria died out. Re-inoculated, 10/12/35. First rigor, 1/1/36. Allowed to have 7 rigors (highest 104.8 deg.).

Before treatment patient had great dulling of mental faculties, thought he had plenty of money, tore his bedclothes, put his stockings over his shoes, and buttoned his waistcoat down his back.

After treatment he was sensible and well-behaved, and was allowed home, arrangements being made for subsequent treatment by Tryparsamide, Bismuth, etc.

Case Two.—Male, aged 42, was inoculated 21/11/35 and had first rigor 29/11/35. Had 9th rigor on 9/12/35, after which Quinine was administered.

Before treatment he was confused, restless, violent, and full of complaints. He had fits of weeping.

After treatment he was quiet, good-natured and well-behaved. Still sluggish mentally, with slight slurring of speech. As his recovery was only partial he was subsequently transferred to a mental hospital.

Case Three.—Male, aged 22, was doubly incontinent and was confused and had filthy habits on admission. Was slow to answer and had foolish laugh. Inoculated 21/11/35. First rigor, 3/12/35. Was allowed to have 8 rigors, all reaching about 102 deg.

After treatment he was up and going about, working in the ward, with no incontinence. Obvious improvement of mental condition. Discharged to his home, with arrangements made for subsequent treatment.

Case Four.—Male, aged 53, admitted in confused, excited condition, suspicious and troublesome. Kept shouting that he was mad and in a madhouse. Inoculated 21/11/35. First rigor

29/11/35. Had 9 rigors, lowest 102.8 deg., highest 104.6 deg. Stopped with Quinine.

After treatment he was quiet and sensible and willingly undertook to return to Hospital weekly for Tryparsamide, etc.

Case Five.—Male, aged 37, had 10 rigors, lowest 101.4 deg., highest 103.8 deg. Stopped with Quinine.

Before treatment he had slight confusion, slow cerebration, depression, slurring speech and twitching of lips.

After treatment he was speaking better, taking more interest in surroundings, able to work in ward and go out for walks. There was still mental slowness and some twitching.

J. B. MACDONALD, M.A., M.B., L.R.C.P.

VENEREAL DISEASES.

Report by DR D. M. KEAY,
Special Medical Officer, Venereal Diseases Scheme.

The general arrangement of the Report bears a major similarity to the preceding although there are minor alterations.

The chief item of medical interest is the treatment of syphilis, which has been dealt with in some detail.

New Patients.—The total number of new cases examined was 1,136, an increase of 228 as compared with 1934. Up to and including 1934, return cases were accepted as new cases.

A further 690 patients who had not completed their treatment on 1st January, 1935, continued to attend, and these, together with 84 return cases make a grand total of 1,910 patients dealt with during the year.

An analysis of the new patients gives the following figures for the various diseases. The corresponding figures for 1934 have been amended and are submitted for purposes of comparison.

	Syphilis		Gonorrhoea		Other V.D.		No V.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
1934,	85	86	275	101	75	—	136	150
1935,	117	95	384	144	79	—	186	131
1934—Male,			571		1935—Male,		766	
Female, ...			337		Female, ...		370	
			<hr/>				<hr/>	
			908				1,136	

The following is an analysis of the sources of the new cases reporting :—

	Male	Female
Practitioners,	113	62
Dundee Royal Infirmary,	34	38
Ante-Natal Clinic,	—	24
Child Welfare Centre,	—	6
Other Institutions,	—	25
Ophthalmic Clinic,	8	3

	Male	Female
Traced by M.O. Female Clinic through female patients,	12	—
Traced by M.O. Male Clinic through male patients,	—	18
With S.D. Cards,	78	—
Voluntary,	521	194
	<hr/> 766	<hr/> 370

The new cases of syphilis were made up as follows :—

	Male	Female
Sero-negative Primary,	7%	—
Sero-positive Primary,	15%	3%
Suffering from secondary syphilis,	12%	16%
In the tertiary phase of syphilis,	41%	59%
Cases showing involvement of central nervous system (Tabes Dorsalis and General Paresis included),	13%	5%
Congenital syphilis,	12%	17%

The cases of gonorrhoea were made up as follows :—

	Male	Female
Early stage and without complications,	23%	37%
Well established,	77%	63%

Out-patients.—The total number of out-patient attendances was 42,648, and are compared with the figures for 1934 in the accompanying table.

		Syphilis		Gonorrhoea		Other V.D.		No V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.
1934,	4,538	4,339	16,853	7,847	549	—	467	748	
1935,	4,254	4,999	21,246	9,848	792	—	430	1,079	
1934—Male,			22,407		1935—Male,		26,722		
Female, ...			12,934		Female, ...		15,926		
			<hr/> 35,341				<hr/> 42,648		

In-Patients.—The number of cases for whom admission to hospital was necessary was 62, made up as follows :—

Syphilis		Gonorrhoea		Other V.D.	
M.	F.	M.	F.	M.	F.
11	12	8	30	1	0

The following are the numbers of in-patient days :—

1934—Male,	1,246	1935—Male,	1,576
Female, ...	2,758	Female, ...	1,768
	<hr/> 4,004		<hr/> 3,344

The number of specimens examined by Professor Tulloch and his staff on behalf of the V.D. Scheme is detailed below :—

	1934	1935
Wassermann Reactions,	2,069	2,041
Special Wassermann Reaction,	288	193
Gonococcus Complement Fixation Tests,	966	1,258
Smears,	2,718	2,806
Cerebro-Spinal Fluids,	2	16
Dark Ground Examinations,	32	32
	<hr/> 6,075	<hr/> 6,346

Treatment.

Gonorrhoea.—There has been no change during the year in our routine methods of treatment of gonorrhoea and its complications. A number of new preparations have been tried but no unusual results have accrued therefrom and we have not felt justified in lessening the intensive and prolonged nature of our established methods of attack.

Diathermy Treatment

Patients who received diathermy during 1935 for the treatment of complications of gonorrhoea were as follows :—

	No. of Patients	No. of Treatments	Average No. of treatments per patient	Average Time per treatment per patient
Epididymitis,	30	180	6	18 minutes
Prostatitis,	33	173	5	18 minutes
Rheumatism,	11	54	5	23 minutes
	<hr/> 74	<hr/> 407	<hr/> —	

Syphilis.—As regards the routine treatment of cases of early syphilis we have adopted the Intermittent Scheme or Plan as suggested by the League of Nations Committee of experts and contained in their report of recent issue. As a number of general practitioners may want to treat such cases, the Committee's suggestions are summarised below.

As a foreword, it must be stated that every suggestion tending to "standardise" the treatment of syphilis raises the objection that such standardisation threatens the initiative of the doctor in the exercise of his profession. There is no question of compelling the doctor to follow such a plan of treatment, still less to expect him to apply it in every case without taking into account the condition of the patient and special circumstances, such as the course of the illness, resistance or intolerance to drugs already administered, complications, contra-indications, etc., etc., Yet, although the adoption of a standard scheme or standard schemes of treatment may not be regarded with favour, it seems to me, that, in a City the

size of Dundee, it ought to be possible for us all to adopt the same *minimum* scale of treatment. Frequently at the clinic, patients with symptoms of advanced neuro-syphilis or cardio-vascular disease report for treatment, and a number of these patients give the history that at some time or another they were given a series of injections and after a variable time assured that they had been cured and that no further treatment was necessary. If these histories are accepted as true we can only assume that the amount of treatment given was painfully inadequate.

A case of syphilis, primary or secondary, is comparatively easy to cure, and a cure can be practically guaranteed, but the treatment of a case of neuro-syphilis is a most difficult undertaking. The proposed treatments are not intended to be more than a guide to enable the doctor to co-ordinate his prescriptions with those of the doctors at the Treatment Centre.

The Committee's report is based on the detailed analysis of the results of treatment of 13,000 cases of syphilis from 93 clinics in five countries—our own clinic being one. As a result of this work the committee suggested two alternate schemes of treatment. One of the intermittent and one of the continuous type, both of which have been shown to be effective by the clinical and serological results obtained.

The material studied by the experts does not enable a clear decision to be arrived at as to the relative merits of the intermittent and the continuous schemes of treatment recommended.

Nevertheless, from the analysis of the material and from the personal experiences of the experts, either of the plans may be expected to yield satisfactory results in ordinary cases of early syphilis.

It is quite possible that the intermittent treatment suggested may in reality be a continuous or almost continuous treatment owing to the constant absorption of bismuth from the sites of injections for some weeks following a temporary suspension of treatment. Either of the systems should be preceded by an adequate clinical examination in order to ensure that there is nothing in the condition of the patient to indicate special precautions as regards the dosage of the drugs to be given.

It is essential when carrying out the treatment to exercise a strict supervision over the patient, especially as regards the mucous membranes, skin, kidneys and liver.

The principles which should guide the doctors during treatment should be as follows :—

(1) At each injection to employ a relatively heavy dose of the arsenobenzol or of the bismuth or mercury compound, the doses being administered in comparatively rapid succession especially at the onset.

(2) To keep the patient constantly impregnated with the drugs avoiding intervals of a duration likely to afford the parasites an opportunity to multiply.

(3) To treat primary cases nearly as energetically as secondary cases.

The treatments include arsenobenzene compounds and preparations of bismuth or mercury, to be administered either simultaneously or alternately and are summarised below.

A suggested course of treatment is also included.

Plan for Intermittent Treatment-Minimum Doses.

Sero-negative primary syphilis.—

“914”—Two courses of treatment each of 4 grammes for men.

Two courses of treatment each of 3.5 grammes for women.

Spread over a period of 30 weeks.

Sero-positive primary and secondary syphilis.

“914 ”—Five courses each of 4 grammes for men.

Five courses each of 3.5 grammes for women.

Spread over a period of 21 months.

Plan for Continuous Treatment.

12 grammes over a period of 65 weeks (15 months) for both men and women.

As this Scheme is of doubtful suitability for adoption in general practice, no further reference need be made to it.

Intermittent Treatment.

Although the above figures comprise the minimum recommended dosage, it is suggested that for adults of average weight and less than 50 years of age, where there are no contra-indications, a number of courses of treatment each comprising the following series of injections should be given.

	“914”	Bismuth Metal (Insoluble Compound)
1st Day, .....	.3 grm.	.2 grm.
5th Day, .....	.3 grm.	.2 grm.
2nd Week, ...	.6 grm.	.2 grm.
3rd Week, ...	.6 grm.	.2 grm.
4th Week, ...	.6 grm.	.2 grm.
5th Week, ...	.6 grm.	.2 grm.
6th Week, ...	.6 grm.	.2 grm.
7th Week, ...	.6 grm.	.2 grm.
8th Week, ...	.6 grm.	.2 grm.
9th Week, ...	————	.2 grm.
10th Week, ...	————	.2 grm.

It is further recommended that :

- (a) In cases which remain or become serologically negative by the end of the first course, four similar courses be administered with intervals of three to five weeks between any two courses and a serological test carried out at the end of each rest period.
- (b) In cases which have not become sero-negative by the end of the first course, in addition to the treatment shown in (a) further courses should be administered until the patient has received as a minimum three beyond that which has ended with sero-negative reactions. At the option of the individual clinician this treatment may be prolonged as may be considered necessary. The clinician may consider it advisable before suspending treatment to have the cerebro-spinal fluid examined.
- (c) Cases presenting signs of clinical relapse of an early type of syphilis should be dealt with on principles similar to those enunciated in (b).
- (d) In the event of any reduction in the amount of treatment being indicated, this should be done by reducing the number of injections of arsenic rather than by diminishing the individual dose or by increasing the intervals between the injections.
- (e) After cessation of treatment, a clinical examination, with serum tests, should be carried out at least every two months during the first year and thereafter every three months until at least two years have elapsed since suspension of treatment. At this stage a complete clinical examination with tests, both of serum and cerebro-spinal fluid together with, if possible, a radiological examination of the heart and large vessels, is desirable.

Dementia Paralytica.

The malarial treatment of cases of Dementia Paralytica is carried out at Maryfield Hospital, and the details of the patients so treated are contained in Dr J. B. Macdonald's section of the report.

End Results of Treatment.

As a result of treatment, 300 patients were discharged as com-

pletely cured—37 cases of syphilis, 181 of gonorrhoea, 4 of soft chancre and 78 of non-specific venereal infections. At the end of the year 757 patients were still under treatment; 133 were transferred to other centres; 380 lapsed treatment during the year, equal to 20 per cent. of the total patients attending.

Follow-Up Work.

As can be seen from the tables, the defaulters numbered 380, or 20 per cent. of the total patients attending.

Although this figure compares favourably with the " lapse rate " of other clinics, the fact must never be lost sight of that these patients are a danger to themselves and to the community, and every effort that is permissible under the existing law should be made to procure their continued attendance until their infective condition is completely eradicated. Although in these cases, it might be said, that individual liberty should give way to the rights of the general public, the big stick is never in evidence at the clinic and in no case are the grave after-effects of the infection used as a means of browbeating the patient into submitting to treatment.

Until recently there has been no recognised scheme of follow-up work in Dundee, but until such a scheme is definitely established we are moving halt-footed towards the Public Health goal of extinction or even control of Venereal Disease.

With the co-operation of the Medical Officer in charge of the Health Visitors, we have recently instituted a scheme whereby every female patient or child who has defaulted for two or three weeks is visited by the nurse in charge of the district in which the patient resides.

Although the scheme has not been long in operation, the response to these visits has been sufficiently reassuring to warrant its continuance.

At the moment no follow-up work is carried out with regard to male defaulters. An effort was made to communicate with them by letter, but it was soon evident that the majority belonged to a hardened, incorrigible section who furnished false particulars as to name, address, etc., at their first attendance at the clinic, and it does not seem possible to devise means of surmounting this difficulty.

BACTERIOLOGICAL LABORATORY.

REPORT By PROFESSOR W. J. TULLOCH.
Director, Bacteriological Department, University College.

REPORT OF WORK CARRIED OUT IN THE DEPARTMENT
OF BACTERIOLOGY, UNIVERSITY COLLEGE, DUNDEE,
ON BEHALF OF THE DUNDEE PUBLIC HEALTH
AUTHORITIES, FROM 1st JANUARY, 1935, TO 31st DECEMBER,
1935.

The Report is presented in the same fashion as in previous years
so that continuity of arrangement may be maintained.

I. CONTROL OF VENEREAL DISEASES.

(a) Control of Syphilis.

1. Dark Ground Examinations.
2. Wassermann Reactions (Routine).
3. Special Wassermann Reactions.
4. Examinations of cerebro-spinal fluids.

(b) Control of Gonorrhoea.

1. Microscopical examination of discharges and urines.
2. Gonococcus Complement Fixation tests.
3. Supply of vaccine.

II. CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Throat swabs from cases and contacts.
2. Virulence tests.

(b) Enteric Fever.

1. Widal Reactions.
2. Blood cultures.
3. Examinations of faeces and urine in cases and convalescents.

(c) Tuberculosis.

(d) Puerperal Sepsis.

III. SPECIAL INVESTIGATIONS.

- (a) Examination of Milk for contamination.
- (b) Examination of Milk for grading.
- (c) Examination of Milk for cleanliness (in collaboration with the Scottish Milk Marketing Board).
- (d) Examination of Milk for tuberculosis.
- (e) Examination of Milks for tuberculosis under the Tuberculosis Order.
- (f) Food-poisoning.
- (g) Primary meningitis.
- (h) Secondary meningitis.
- (i) Faeces for amoebic dysentery.
- (j) Bacillary Dysentery.
- (k) Examination of crusts for smallpox.
- (l) Leptospirochaetosis.
- (m) Blood culture in pyrexia of unknown origin.
- (n) Miscellaneous investigations.

I. CONTROL OF VENEREAL DISEASES.

(a) Control of Syphilis.

1. Microscopical examinations of material to demonstrate the presence of *Treponema Pallidum*.

During 1935, only 36 examinations were made for the presence of *T. Pallidum* in suspected syphilitic sores. This number is much smaller than might be expected, and it is almost certain that there is a large number of cases of this disease whose diagnosis is unnecessarily delayed. The success of preventive and therapeutic measures in this, as in most other communicable diseases, is largely dependent upon early and accurate diagnosis. Delay in diagnosis and treatment means greater danger of spread of the disease, for, with modern methods of treatment, the infectivity of a case of syphilis can be markedly reduced in a very short time.

It is repeated and it cannot be sufficiently emphasised that the Wassermann Test, reliable though it be, cannot give the same unequivocal evidence of syphilitic infection as does the demonstration of *T. Pallidum* in morbid exudates.

Moreover, postponement of treatment means prolonged treatment which is more costly, and the end results of which are much less satisfactory than when active treatment is commenced in the primary stage of the disease.

To call upon the venereal diseases officers to treat late cases of syphilis in which the diagnosis could have been established with certainty during the early phases of the infection is to place upon these officers a burden of work and a responsibility which is quite unnecessary, and defeats, to a large extent, the object of the scheme for the control of Venereal Diseases.

Of the 36 cases examined, 33 were sent by the venereal diseases officers, and only 3 by private practitioners.

2. Wassermann Reactions.

The improvement in the technique for conducting the Wassermann Reaction, elaborated during 1926-27, continues to form the basis of the routine method of conducting that test in this laboratory, and the experience now obtained shows definitely that these improvements have greatly enhanced its reliability, and it may be said that the test now is as reliable as it is possible to make it.

The number of routine tests carried out was 3,872, of which 2,041 were from the clinic, 491 from other Public Health Institutions, 231 from private practitioners, and 1,109 from institutions other than those connected with the Department of Public Health.

To the total number there must be added 289 tests in which the material examined was cerebro-spinal fluid, and in such cases a reinforced method is always employed so that the total of Qualitative Wassermann Reactions conducted is 4,161, for 1935.

3. Special (Quantitative) Wassermann Tests.

The special quantitative Wassermann reaction, elaborated in 1925, continued in use during 1935, in order to control the treatment of cases attending the clinics.

It has proved extremely useful in determining the value of treatment, in determining the progress of treatment, and in the continued observation of Wassermann-fast cases. The number of investigations of that nature carried out during the year was 206, all but 3 being from the clinic, so that the grand total of Wassermann Reactions for the year under consideration was 4,367.

4. Examination of Cerebro-spinal Fluids.

During 1935, the complete investigation of cerebro-spinal fluids from cases of suspected Neuro-syphilis was continued. In addition to the ordinary Wassermann test and re-inforced Wassermann test, a complete chemical and cytological examination was performed, while the Lange gold test was employed as routine. Of the 289 investigations, 16 were carried out on material from patients at the clinic, 42 from Maryfield Hospital, and 30 from other institutions connected with the Department of Public Health, while the remainder of the specimens were sent by consultant physicians.

(b) Control of Gonorrhoea.

One is pleased to note that the interest in this disease is being maintained, for the fact must not be lost sight of that Gonorrhoea may be even a more serious malady than Syphilis.

1. Microscopical examination of discharges for the diagnosis of, and control of treatment in Gonorrhoea.

During 1935, 3,118 microscopical examinations of material for the diagnosis and control of Gonorrhoea were carried out. These were distributed thus:—

	Discharges, including urine after prostatic massage.
From other Public Health Institutions,	142
From the Clinic,	2,806
From institutions other than those controlled by the Public Health Department,	109
From Private Practitioners,	61

2. Investigation of cases of Gonorrhoea by the Complement Fixation Reaction.

During 1935, 1,533 Complement Fixation Tests have been carried out with a view to the control of treatment or diagnosis of Gonorrhoea. They were distributed thus:—

From the Clinic,	1,258
From other Public Health Institutions,	168
From Private Practitioners,	19
From institutions other than those controlled by the Public Health Department,	88

The grand total, then, of examinations conducted for the diagnosis and control of Venereal Diseases is as follows :—

Dark Ground Examinations,	36
Wassermann Reactions (Ordinary),	3,872
Special Quantitative Wassermann Reactions, ...	206
Special examinations of Cerebro-spinal Fluids, ...	289
Microscopical examination of discharges and urine,	3,118
Gonococcus Complement Fixation Tests,	1,533
	<hr/>
	9,054
	<hr/>

3. Gonococcal Vaccine.

During 1935, the laboratory has continued to supply male and female clinics with gonococcus vaccine upon a large scale.

During the last year the increased demand for this has been very heavy indeed, and some difficulty has been occasionally experienced in satisfying the demands of the officers, but we have so far succeeded in fulfilling the requirements.

II.—EXAMINATIONS FOR THE CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Cultural examination of throat swabs.

Although during 1935 there has been no notably serious outbreak of diphtheria in Dundee, nevertheless a considerable number of cases have occurred, and the total number of routine swabs examined was 1,098. Of these, 855 were taken from the throat, while 243 were of nasal origin.

During this year we have continued as a routine measure to cultivate diphtheria swabs both on solidified serum—the recognised procedure—and on McLeod's tellurite blood agar. The results obtained have not been without interest in that a group of cases due to the intermediate type of the bacillus, and in which secondary infection with other bacteria was heavy, difficulty was experienced in obtaining the bacilli from the serum cultures while their presence in the McLeod cultures was easily demonstrated.

In view of this it is proposed to continue with both procedures even although the work entailed is considerably increased.

In this connection I have to record with regret the departure of Dr J. F. Murray who, on completion of his research concerning diphtheria in Dundee and district, left to take up an appointment in South Africa.

Although unable to continue the intensive investigation carried on by him, his findings have been most valuable in that the application of his methods to our routine diagnostic work has markedly increased its efficiency.

The so-called "intermediate" variety of bacillus diphtheriæ continues to be the predominant type of that micro-organism in this district, and is responsible for practically all those cases which are clinically severe.

In connection with the examination of throat swabs, two points call for comment, viz.:—(1) The result of the bacteriological examination of the throat is of great importance to the public health officer, and its value to the practitioner is no less great when he is dealing with doubtful cases, but when the clinical features suggest diphtheria, it is unwise to delay the administration of anti-toxin until the result of the bacteriological examination is available. A case which is clinically diphtheria should be treated as diphtheria. If complete investigation negatives the diagnosis no harm is done, but harm is liable to be done to cases of diphtheria when the administration of serum is delayed. (2) In cases which are clinically diphtheria it is well to have the diagnosis verified by bacteriological examination, but it is especially important that treatment be initiated forthwith, and in order that no misunderstanding should arise from this cause, every report on the examination of a throat swab which is negative is sent on a form on which the following is printed in red:—

“IMPORTANT.—Please note that a negative swab result does not exclude diphtheria. The laboratory findings pre-suppose that the suspicious lesion has been touched with the swab—NOT ALWAYS POSSIBLE IN CERTAIN TYPES OF DIPHTHERIA, ESPECIALLY LARYNGEAL DIPHTHERIA. CLINICALLY SUGGESTIVE cases should be treated without awaiting result of swab. DELAY IS DANGEROUS.”

2. Virulence Test.

During 1935, the virulence of strains of bacteria resembling bacillus diphtheriæ, and recovered from the respiratory tract of 58 convalescents or suspected carriers, was determined.

The object of this type of examination is to ensure on the one hand that convalescents who *appear* to remain infected with the diphtheria bacillus are in fact infected and infective, and also to ensure that suspected carriers do harbour the organism.

Care must be experienced in these matters as harmless bacteria, which are normal inhabitants of the throat but in appearance resemble the true diphtheria bacillus, may be mistaken for that micro-organism. The result of such error is that the period of hospital residence of convalescents may be quite unnecessarily prolonged, or that an individual may be wrongly suspected of being a carrier and so a potential danger to his fellows.

Accurate information concerning these so-called "diphtheroid" bacilli in such circumstances reduces expenditure in the case of convalescents and is protection from unnecessary inconvenience in that of the suspected carrier.

The details of these 58 tests are as follows :—

- (i.) Gravis strains—Nil.
- (ii.) Intermediate strains—15, all virulent.
- (iii.) Mitis strains—12, of which 4 were avirulent.
- (iv.) "Diphtheroids"—22.
- (v.) Cultures containing Hofmann bacillus—9.

The four avirulent mitis strains were of interest in that, although in all other respects they qualified as true diphtheria bacilli, they were, at least so far as laboratory investigation was concerned, devoid of disease producing qualities.

(b) Control of Enteric Fever.

Fortunately during the year 1935 very few cases of enteric fever occurred in the city. Although the examination of material from suspected cases of this malady involved the investigation of 210 specimens in all, the number of cases in which the suspicion proved to be well founded was only eight.

These examinations, many of which were performed solely for the purpose of excluding a diagnosis of enterica, were as follows :—

1. Widal Reactions.

In all, 164 tests were carried out on 82 specimens of blood from suspected cases of enteric fever. The duplicate test against both typhoid and paratyphoid beta continues to be employed as a routine.

In 8 instances a positive result was obtained, 4 being from cases of typhoid, and 4 from paratyphoid beta infection.

During the year under review we continued to test all bloods submitted for the Widal reaction against the bacillus abortus of Bang.

Among the 82 specimens so tested, 3 agglutinated the bacillus abortus in such low concentration that the reaction was diagnostic.

Of the three patients, one was a permanent resident of the City, one was admitted to an institution in the City from the County as a case of pyrexia of unknown origin, while as to the third there was evidence that the infection had been acquired while the patient was on holiday. In addition, examination of suspected cases of undulant fever by blood culture was performed in two instances with, however, negative findings.

It would seem then that there is a small, but an appreciable, incidence of undulant fever in our City, the causal agent of which is the bacillus abortus of Bang.

2. Blood Culture.

The most satisfactory of all methods for diagnosing enteric fever is blood culture, as by this means an early and accurate diagnosis can be established. In the past, this method has not found much favour among the practitioners of the City.

The method was, however, employed in 20 suspected cases. In five of these an early diagnosis was made possible. In two the infecting organism proved to be the typhoid bacillus, and these were the only positive enteric blood cultures obtained during the year.

In this connection it cannot be sufficiently emphasised that BLOOD CULTURE IS THE ONLY METHOD WHEREBY AN EARLY AND ACCURATE DIAGNOSIS OF ENTERIC CAN BE MADE.

The significance of this, from the standpoint of public health, is not only that early diagnosis leads to the necessary precautions being taken to prevent further spread of the infection, but, in this instance, the diagnosis may be made at a period when the infectivity of the case is still minimal.

3. Examinations of Faeces, Urines, etc., from Enteric Convalescents, and re-examination of Cases occurring in the past year.

(i.) Faeces.

During 1935, 86 specimens of faeces from convalescents of enteric fever or from possible carriers of the disease were examined, the typhoid bacillus found in one, and the bacillus paratyphosus beta in two.

(ii.) Urines.

During 1936, only 22 specimens of urine from convalescents of enteric fever were made the subject of cultural investigation. Of these one was positive, the infecting micro-organism being bacillus typhosus.

Attention should be specially directed to these cases of urinary infection in enteric, as patients with infective urine are always a greater danger to others than are those whose intestinal contents alone are infected. The reason for this is that frequently less care is exercised in the disposal of urine than of faeces.

Indeed, chronic urinary carriers are in a special sense a menace to those around them, and it is important that this be adequately appreciated.

(c) Control of Tuberculosis.

360 specimens of sputum were examined from cases in Dundee during 1935, a figure showing no notable change from that of previous years. The percentage of positive findings was 11 per cent. which is not significantly different from previous years.

In addition to the investigations conducted on behalf of the City Health authority to assist in the control of tuberculosis, numerous specimens of morbid material submitted from patients in institutions are of such a nature that it is necessary to exclude tuberculosis. During 1935, 432 such specimens have been investigated, comprising :—

Urines,	232
Cerebro-spinal fluids,	60
Pus, including pus from glands,	96
Pleural fluids,	26
Fluids from joints,	5
Miscellaneous,	13
	<hr/>
	432

(d) Puerperal Sepsis.

During 1935, the investigations of material from puerperal sepsis has been continued. The improvements in technique introduced in 1932 with a view, if possible, further to elucidate the question of the relative importance of different varieties of streptococci, as causal agents of the condition, have been used throughout the year, and the following are the results obtained.

In all, 140 examinations from 82 patients have been carried out during the year under review, and these comprise :—

(a) Examination of uterine cultures,	129
(b) Blood cultures,	11

As puerperal sepsis is, in the main, associated with streptococcal infections, and as the severer forms of the disease appear usually to be caused by streptococcus haemolyticus, the following figures dealing with the recovery of streptococci from puerperal cases may be of some interest.

In 6 patients both blood culture and full investigation of uterine discharge was carried out, the following results being obtained.

(i.) In one case, streptococcus viridans was shown to be present both in the blood and in the discharge.

(ii.) In one, streptococcus viridans was shown to be present in the blood, but not in the uterine discharge.

(iii.) In one instance, streptococcus hæmolyticus was recovered from the uterine discharge, but not from the blood.

(iv.) In three instances, streptococci were recovered neither from the uterine discharge nor from the blood.

(v.) In five additional cases, streptococci were not recovered from the blood, while the uterine discharge was not investigated.

The results may be summarised thus:—

	Uterine Culture	Blood Culture
Patients,	129	11
Streptococcus hæmolyticus,	18	0
Streptococcus viridans,	15	2
No streptococci,	96	9

In addition, complete bacteriological examination of the bacterial flora of the throats of medical attendants and midwives were also carried out in 22 instances.

This makes a grand total of 162.

III.—SPECIAL INVESTIGATIONS.

During 1935, 77 specimens of milk were examined to determine the degree of bacterial contamination, and the presence of organisms of faecal origin. Included in this figure are 15 which were specially examined for grading.

The results of these examinations are as follows:—

1. Test for presence of B. Coli.

B. Coli test positive in .001 c.c. or less—unsatisfactory, ...	10
B. Coli test positive in .01 c.c., negative in .001 c.c.—doubtful, ...	6
B. Coli test positive in .1 c.c., negative in .01—good,	7
B. Coli test positive in 1 c.c., negative in .1—Very good, ...	18
B. Coli test negative in 1 c.c.—excellent,	36
	<hr/>
	77
	<hr/>

So far then as the B. Coli test is concerned, 61 of these milks are up to the standard of Grade A Milk, while 54 pass the more severe test for certified milk.

2. Total Number of Micro-organisms.

(a) Over 5,000,000 per c.c.,	2
(b) Over 3,000,000 but less than 5,000,000 per c.c.,	2
(c) Over 1,000,000 but less than 3,000,000 per c.c.,	3
(d) Over 700,000 but less than 1,000,000 per c.c.,	2
(e) Over 500,000 but less than 700,000 per c.c.,	2
(f) Over 300,000 but less than 500,000 per c.c.,	2
(g) Over 200,000 but less than 300,000 per c.c.,	9
(h) Over 100,000 but less than 200,000 per c.c.,	4
(i) Over 50,000 but less than 100,000 per c.c.,	10
(j) Over 30,000 but less than 50,000 per c.c.,	13
(k) Over 10,000 but less than 30,000 per c.c.,	7
(l) Over 5,000 but less than 10,000 per c.c.,	6
(m) Less than 5,000 per c.c.,	15

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(b) Examination of Milks for Grading.

Included in the above were 15 specimens in which the special examinations for grading and certification were carried out. The investigation in such circumstances is conducted according to a standard method advised by the Department of Health for Scotland, these milks being submitted by dairies in Dundee for grading under the Milks (Special Designation) Order, 1928, and Amendment Order (Scotland), 1928. Of the 15 milks, 11 were remarkably clean, in that bacillus coli could not be demonstrated even in 1 c.c., while a total count of each is as follows:—

Colon Test	Total Count
Negative in 1 c.c.	950 per c.c.—Feb.
Negative in 1 c.c.	4,200 per c.c.
Negative in 1 c.c.	2,100 per c.c.
Positive in 1 c.c. but negative in 0.1 c.c.,	4,000 per c.c.
Negative in 1 c.c.	2,400 per c.c.—May
Negative in 1 c.c.	6,000 per c.c.
Positive in 1 c.c. but negative in 0.1 c.c.,	6,700 per c.c.
Negative in 1 c.c.	400 per c.c.—Nov.
Negative in 1 c.c.	1,200 per c.c.
Negative in 1 c.c.	6,800 per c.c.
Negative in 1 c.c.	7,700 per c.c.
Negative in 1 c.c.	35,000 per c.c.—Aug.
Negative in 1 c.c.	49,000 per c.c.
Negative in 1 c.c.	63,000 per c.c.
Positive in .01 c.c.	1,200,00 per c.c.

It will be observed that in one instance the content of bacillus coli was too high, fourth specimen, August, 1935, and in the same specimen the total count was also much too high.

- (c) Examination of Milks for Cleanliness performed in collaboration with the Scottish Milk Marketing Board.

During 1935, the Health Authority of the City of Dundee co-operated with the Scottish Milk Marketing Board in making a survey of the milk retailed in Dundee and district.

During the period June to September, 102 specimens from retailers of milk in Dundee were scrutinised, the procedures used being, (i.) the determination of the total number of bacteria in, and (ii.) the rapidity of reduction of the dye methylene blue by the milk.

1. Total number of micro-organisms in the sample :

(a) Over 5,000,000 per c.c.	6
(b) Over 3,000,000 but less than 5,000,000,	1
(c) Over 1,000,000 but less than 3,000,000,	4
(d) Over 700,000 but less than 1,000,000,	6
(e) Over 500,000 but less than 700,000,	3
(f) Over 300,000 but less than 500,000,	4
(g) Over 200,000 but less than 300,000,	11
(h) Over 100,000 but less than 200,000,	20
(i) Over 50,000 but less than 100,000,	19
(j) Over 30,000 but less than 50,000,	13
(k) Over 10,000 but less than 30,000,	11
(l) Over 5,000 but less than 10,000,	3
(m) Less than 5,000,	1

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These figures compare very favourably with corresponding findings in other parts of the country. It is especially worthy of note that no less than 78 of the 102 specimens gave total counts below 300,000 colonies per c.c., notwithstanding the fact that the survey was made at the period of the year when bacterial counts in milks usually reach their maximum.

The results of the methylene blue reduction test was as follows :—

Reduction of the dye in 1 hour or less,	4	samples
„ „ „ in from 1½ to 2 hours.,	8	„
„ „ „ in 3 hours,	11	„
„ „ „ in 4 hours,	9	„
„ „ „ in 5 hours,	23	„
Reduction in 6 hours or failure to reduce in 6 hours,	47	„

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If we accept as clean a milk which, with the standard methylene blue test, reduces the dye in a period not shorter than 4 hours, 81 of the 102 samples would be regarded as satisfactory.

Superficially then there appears to be a fairly close correlation between the findings of the two methods. If, however, these methods be considered as applied to individual milks the correlation is anything but striking.

This is indicated from the following 15 samples taken from the Dundee series of 102 samples in which the variation as between the two tests was on the whole less than that observed in the larger series taken from the County of Angus.

Methylene Blue Reduction in		No Reduction
3 hours	4 hours	in 6 hours
2,400,000	502,000	243,000
1,000,000	370,000	114,000
340,000	170,000	72,000
300,000	142,000	59,000
249,000	89,000	3,500

Such discrepancy in the two tests is to be expected for the rapidity with which different kinds of bacteria reduce methylene blue is variable. Indeed some produce metabolites which inhibit the reduction of the dye, and their presence in large numbers is compatible with a slow reduction rate.

The test has the advantage of being simple and cheap, but its value for assessing the cleanliness of milk is limited in that it fails to give an adequate gradation in the case of those samples which are really clean.

(d) Examination of Milk for the Presence of Tubercle Bacilli.

During 1935, 27 samples were tested for the presence of tubercle bacilli by the inoculation method. Of these only one proved to be tuberculous—a finding that is very similar to those of previous years.

(e) Examination of Milks for Tuberculosis under Tuberculosis Order.

During 1935, no specimens of milk, or tissue from the udder were investigated for the presence of tubercle bacilli under the Tuberculosis Order.

(f) Food Poisoning.

During the year under consideration, no extensive outbreaks of food poisoning occurred in the City. There were, however, 15 suspected sporadic cases, four of which proved to be true bacillary food infection.

Of these, two were due to the Aertrycke bacillus and two to infection with less well defined members of the salmonella group of bacilli.

As so often happens, several of these suspected cases of food poisoning proved to be bacillary dysentery.

The investigation of these 15 suspected cases involved the examination of 25 specimens of morbid material and 2 samples of food.

(g) Primary Meningitis.

During 1935, 22 cases of such nature that they might have been primary meningococcal meningitis occurred in Dundee, and all were made the subject of extensive bacteriological examination. Of these, 5 proved to be cases of true cerebro-spinal (meningococcal) meningitis, each of which was examined several times during the progress of the illness. The total number of tests made in this condition was 41.

The number of cases of meningococcal meningitis is considerably less than in the previous year, but although the number is

small it should be noted that sporadic cases continue to occur. In view of this, especially at present when cases are occurring elsewhere, it would be well to bear in mind the possibility of the re-appearance of the malady in our population.

In addition to these suspected cases of meningococcal meningitis, there were 32 in which primary meningitis, other than that due to infection with the meningococcus, was suspected.

Of these, 6 proved to be due to the pneumococcus, Type II., one to infection with a hæmolytic streptococcus, three were instances of unusually acute tuberculous infection, and one was secondary to brain abscess.

There were, therefore, 38 cases in which, although primary meningitis was suspected upon clinical grounds, that diagnosis was not established when complete investigation was undertaken.

These cases of " meningismus " where the clinical findings suggest, but examination fails to reveal, infection, are interesting in that the condition is often associated with pneumococcal invasion in other parts of the body.

In 3 of the 38 cases large numbers of inflammatory cells were present in the cerebro-spinal fluid, and clinically the cases recalled a condition that was cited in the report for the year 1930.

(h) Secondary Meningitis.

During 1935, we were not called upon specifically to investigate any cases of meningitis occurring as a sequel to injury, or arising as a complication in other conditions.

Actually four such cases were encountered, and two of these have been dealt with in the previous paragraph, namely, a case of meningitis secondary to brain abscess, and an instance of meningitis due to streptococcus hæmolyticus following middle ear disease.

The remaining two cases were due to streptococcus viridans and also followed infection of the middle ear.

The total number of examinations performed in the investigation of suspected meningitis other than meningococcal meningitis was 36.

(i) Amoebic Dysentery.

Two cases of suspected amoebic dysentery occurred in the City during 1935; complete investigation negated this diagnosis in both.

(j) Bacillary Dysentery.

During 1935, as in previous years, cases of bacillary dysentery, due to the mannite fermenting dysentery bacilli, have occurred in Dundee, and, as before, these have been regarded as " food poisoning " until laboratory investigation revealed the true character of the illness.

In no instance, I am glad to say, was there an institutional outbreak, and furthermore family outbreaks were conspicuous by their absence.

All the cases were, therefore, sporadic so that the source and vehicle of infection was difficult to determine.

In all, 149 examinations were carried out in 107 suspected cases of bacillary dysentery during 1935. Of these, 144 were examinations of faeces and 5 were agglutination tests with the serum of convalescents or contacts.

The cases may be categorised as follows :—

(i.) In 5 of these sporadic cases the causal agent exhibited wide relationships within the group of Flexner bacilli. The strains isolated reacted markedly with antisera to all the varieties thereof and were possessed of all five antigens, V, W, X, Y and Z.

(ii.) In 2, the antigens present were V, W, X and Y.

(iii.) There were one each of the following serological types :

- (a) WXYZ.
- (b) XZ.
- (c) Z.

(iv.) There were no cases during 1935 in which the causal agent was proved to be Sonne III. bacillus.

(v.) There were 2 cases in which the infecting organism was not a true dysentery bacillus—viz., bacillus Morgan I. This

micro-organism under certain circumstances gives rise to gastrointestinal disturbance, and is of special significance in children.

(vi.) In 11 cases, bacilli having the cultural characters of the Flexner group, but failing to react with any of the defined antisera to the various types within that group, were recovered.

All 11 cases were quite characteristic cases of sporadic bacillary dysentery, and we must regard the organisms isolated as "aberrant Flexner bacilli."

In two instances their relationship to the disease process was established by the fact that during convalescence specific anti-substances to the infecting bacillus appeared in the serum of the patient.

(vii.) In 7 cases there was definite evidence that the patients were the victims of bacillary dysentery although we failed to isolate the causal agent.

This happens not infrequently because the dysentery bacilli sometimes disappear rapidly from the excrement after it is passed.

(viii.) There were, therefore, 77 cases in which examination for bacillary dysentery was requested by the medical attendant, but no evidence, direct or indirect, of that condition was present.

(k) Variola Vaccinia Flocculation Reaction.

During 1935, no cases of smallpox occurred in the City, and we were only once called upon to perform this reaction to corroborate a diagnosis of severe chickenpox.

It may be noted, however, that the help of the laboratory has been requested by other public health authorities to assist in the investigation of doubtful cases of smallpox. Fortunately only negative findings were obtained in cases from this part of the country. Subsequent events proved the cases to have been Variocella.

(1) Leptospirochaetosis.

There were 5 suspected cases of infection with leptospira icterohaemorrhagiae during 1935.

None proved positive although the blood of each was examined early in the disease and the urine at a period when the presence of leptospira in that secretion might well be expected.

In all, 9 specimens were examined from these five patients, and it is probable that none of them were actually cases of leptospirochaetosis.

In connection with this malady the following points are worthy of note :—

In the first place a definite outbreak of leptospirochaetosis occurred recently among fish workers in Aberdeen, and as we know from the survey of rats made during 1925 that the rats of Dundee are as heavily infested with leptospira as are those of Aberdeen, it is possible, should the required conditions be fulfilled, that this disease might occur in Dundee.

The conditions in which propagation of infection from rat to man is liable to occur are those associated with the handling in moist surroundings of certain foodstuffs which attract rats.

Secondly, Schuffner has shown that in Holland a large percentage of cases of the disease do not become jaundiced. It is not improbable then that some cases of " pyrexia of unknown origin " are really of this nature.

Thirdly, it has recently been established that as the disease progresses the urine of the patients acquires the property of killing the causal organisms; it follows from this that a negative finding on examining the urine is of no significance.

Fourthly, Schuffner has elaborated a test, using a small quantity of the patient's blood, whereby an accurate diagnosis can be easily established at any time after the first few days of the illness.

Through the kindness of Dr J. Smith, Bacteriologist to the City of Aberdeen, we are now in a position to carry out this test. Should practitioners desire to avail themselves of this they are asked please to communicate directly with the laboratory.

(m) Blood Culture in Pyrexia of Unknown Origin.

During 1935, the number of blood cultures that have been made to assist in the diagnosis of pyrexia of unknown origin was 47. The value of the procedure both from the standpoint of diagnosis and of prognosis is considerable,

Of these, 37 failed to show the presence of bacteria in the circulation, while the organisms present in those which proved positive were as follows :—

(i.)	<i>Streptococcus hæmolyticus</i> ,	1
(ii.)	<i>Streptococcus viridans</i> ,	3
(iii.)	<i>Staphylococci</i> ,	4
(iv.)	<i>Paratyphosus Beta</i> ,	1
(v.)	<i>Bacillus coli</i> ,	1
		—
		10
		—

(n) Miscellaneous Investigations.

In addition to the work categorised under the above headings, a number of miscellaneous tests, etc., have been carried out on behalf of the Public Health Authority of the City of Dundee.

Among these miscellaneous investigations were the following :—

(i.) Vincent's Angina.

Material from 11 cases of suspected Vincent's Angina was investigated during the year under consideration.

(ii.) Investigations for King's Cross Hospital.

1.	Preparation of Vaccine,	1
2.	Complete examination of pleural pus,	8
3.	Examination of throat swabs for <i>Streptococcus Scarlatinæ</i> ,	8
4.	Agglutination in cases of suspected infection with organisms of doubtful pathogenicity,	2
5.	Complete examination of pus,	5
6.	Complete examination of pus from mastoid,	2
7.	Complete examination of urine,	2
8.	Complete examination of cerebro-spinal fluid,	1

(iii.) Investigations for Maryfield Hospital.

1.	Preparation of vaccine,	1
2.	Complete examination of pus,	1
3.	Complete examination of sputum,	1
4.	Complete examination of urine,	4
5.	Complete examination of cerebro-spinal fluid,	11

- | | | |
|----|---|---|
| 6. | Examination of exudate from Tetanus infected wound, ... | 1 |
| 7. | Supply of reagent for producing "protein shock," | 1 |

(iv.) Investigations for Westgreen Mental Hospital.

- | | | |
|----|---------------------------------------|---|
| 1. | Preparation of vaccine, | 3 |
| 2. | Complete examination of faeces, | 1 |

(v.) Investigations for Dundee Infant Hospital.

- | | | |
|----|---|---|
| 1. | Complete examination of swabbings from upper respiratory tract, | 1 |
|----|---|---|

(vi.) Investigations for Public Health Institute.

- | | | |
|----|--------------------------------------|---|
| 1. | Complete examination of pus, | 1 |
| 2. | Complete examination of urine, | 2 |

During 1935, an attempt was made to collect serum from patients convalescent from measles, in order that a supply of this might be available for the treatment of grave cases of that illness in weakly children.

The separation of the serum and the testing of it to ensure that it is both sterile and suitable for the purpose in view, constituted an additional service rendered by the laboratory during 1935.

In addition to these examinations performed on behalf of patients under treatment in hospitals or clinics administered by the Public Health Authority of the City a number of investigations dealing with communicable disease were also carried out.

These comprise :—

1. Three cases of suspected malaria.
2. One case of infestation with *Taenia mediocanellata*.
3. One case of infestation with *Dibothriocephalus latus*.
4. One case of anterior poliomyelitis.
5. One case of suspected post vaccinal encephalitis.
6. The examination of a cat suspected to be responsible for the propagation of intestinal infection.
7. In several instances we were asked to determine the serological type of the pneumococcus responsible for pleuritis, meningitis, pneumonia, etc,

The work of the laboratory on behalf of the Public Health Authority of the City of Dundee during 1935 has been very similar to that in previous years, excepting 1931 and 1932 when, owing to the survey of market milk, the volume of work done was in excess of average years.

It has been a very pleasant duty indeed to conduct the work herein reported, and the success which has attended it is due in no small measure to the ready, willing and helpful co-operation of the staff of the Public Health Department, and the hospitals and clinics attached thereto.

This co-operation does much to lighten the work, makes it more interesting, increases efficiency, and offers educational facilities to the department and its ancillary clinics.

MATERNITY SERVICES

Reports by DR. MARGARET SCOTT-DICKSON,
Maternity Services Medical Officer.

DR. MARGARET FAIRLIE.

DR. H. GORDON CAMPBELL.

The general working of the Scheme has been carried out as in previous years, and there are no alterations or additions to note.

The attendances at the Day Nurseries have increased by nearly 50%, as compared with 1934. This not only indicates more steady employment of the mothers, but also the absence of any outbreaks of illness among the children attending. The Infant Department at the Nursery School in Watson's Lane has been an unqualified success, and much appreciated by the mothers.

I again take this opportunity to thank the members of the Staff for their loyal service, and the members of the Dundee Voluntary Health Workers' Association for their continued valuable assistance at the Clinics, Sewing Classes, and Day Nurseries.

The detailed report of the work follows, including reports from the Medical Officers in charge of the Special Clinics.

Infantile Mortality.

(a) Number of deaths 218

(b) Rate per 1,000 births 64

(c) For classification of deaths in age groups and causes of death—See Table XII., in the statistical section of the report.

218 deaths of children under one year were noted by the Maternity Services Scheme, distributed as follows:—

1st	2nd	3rd	4th	1-3	3-6	6-9	9-12	
week	week	week	week	months	months	months	months	Total
85	6	12	11	30	25	29	20	218

Of these 77 were breast fed.

6 were partly breast fed.

5 were mixed feeding (breast and artificial feeding).

59 were artificially fed.

In 42 cases feeding was not commenced due to prematurity.

22 cases were not visited.

In 6 cases no particulars were obtained.

Regarding the feeding, the ages at which those infants died were as follows :—

	1st month	2nd month	3rd month	4th month	5th month	6th month	7th month	8th month	9-12 months	Total	Feeding not commenced	Not Visited	No Particulars Obtained
Breast	37	10	4	4	3	2	1	4	12	77	..	..	..
Partly Breast	0	1	1	0	0	0	0	1	1	4	..	..	..
Mixed	0	2	0	2	0	0	2	0	1	7	..	..	..
Artificial	13	5	6	3	4	6	5	5	13	60	..	..	..
Totals	50	18	11	9	7	8	8	10	27	148	42	22	6

In 190 cases in which particulars were obtained, 33 mothers were engaged in work outside their own homes ; and 157 were not thus engaged.

In 1 case the mother left work 4 weeks before confinement.

24 children who died were illegitimate.

29 children who died were twin births.

67 deaths were due to prematurity.

In addition to deaths of infants under one year of age, 74 deaths of children from 1-5 years of age were noted by the Department.

Births.

(a) Number registered (corrected)	...	...	3,195
(1) Legitimate	...	...	2,896
(2) Illegitimate	...	...	299
(b) Number notified	...	...	3,381

(c) Number classified according to nature of attendance (doctor, midwife, etc.) :—

Doctor	...	...	...	...	223
Doctor and Midwife	...	...	...	...	158
Midwife	...	...	...	...	864
Maternity Ward, D.R.I.	...	...	...	...	1,718
Maryfield Hospital...	...	...	...	...	56
Clement Park Maternity Home	...	...	...	...	319
Parents	...	...	...	...	9
Other sources	...	...	...	...	34

(d) Number of stillbirths (births of dead children) 164

PARTICULARS OF BIRTHS NOTIFIED AND REGISTERED IN DUNDEE DURING 1935.

Number of births taken from Registrars' Weekly Returns (including transfers out)	...	...	...	...	3370
Difference between Notification and Registration (1934-1935 and 1935-1936)	...	...	...	...	8
					3378
(1) Number of live births occurring in Dundee	...				3367
Number of stillbirths	...	...	...	...	164
(2) Total number of births occurring in Dundee	...				3531
(3) Number of births notified, in accordance with the Act—i.e., 95.9% of total number of births (3531)	...	...	...	...	3381
(4) Number of live births notified—i.e. 95.6% of live births (3367)	...	...	...	...	3217

CLASSIFICATION OF NOTIFICATIONS.

Attendance in relation to notification :—

By whom Notified.	Notified.	Unnotified.	Total.	Total cases attended.	Percentage of total births.
Doctors	223	141	364	407	11.2
Doctor and Midwife	158	—	158	158	4.4
Midwives	864	5	869	869	21.7
Mat. Ward D.R.I....	1,718	1	1,719	1,719	48.6
Maryfield Hospital	56	—	56	56	1.5
Clement Pk. Mat. Home	319	1	320	320	9.6
Parents	9	—	9	—	—
Other Sources	34	—	34	—	—
Found Dead	—	1	1	1	—
No Attendant	—	1	1	1	—
	3,381	150	3,531	3,531	

STILLBIRTHS

164 stillbirths were notified during 1935.

33 of these occurred in the practice of Midwives which were classified as follows :—

	Macerated Foetus	Complicated Labour	Congenital Deformities	Unclass- ified	Total
Full time Infants	5	9	—	2	16
Premature Infants	4	2	2	9	17

Maternal Mortality.

- (a) Number of deaths resulting from miscarriage
or childbirth 20
- (b) Number of deaths resulting from Puerperal Sepsis 4

During 1935 an inquiry was made into 31 deaths of women occurring in childbirth or within 28 days after, or later if illness originated during pregnancy, childbirth or puerperium. 7 of the above deaths occurred in women whose homes were outwith the Dundee boundary, but who had been brought into the City for hospital treatment of complications arising during pregnancy, parturition or puerperium, and the information regarding these cases was sent to the medical officers of the districts to which they belonged.

In the 24 Dundee deaths the attendants at birth were—Maternity Ward Dundee Royal Infirmary I.P. 11, General Ward 1; Doctors, 3; Midwives, 1; Doctor and Midwife, 1; Maternity Home 2; Maryfield Hospital, 4; Nursing Home, 1.

CLASSIFICATION OF CERTIFIED CAUSES OF DEATH (24 cases) :—

(a) Deaths from emergencies and other causes directly due to Parturition (12 cases) :—

Puerperal Sepsis	...	...	...	2
Acute Intestinal Obstruction following Puerperal Peritonitis	...	...	...	1
Toxaemia of Pregnancy; Uraemia			...	1
Hyperemesis Gravidarum		...	...	1
Post-Operative Shock; Hyperemesis Gravidarum				1
Pre-Eclampsia Albuminuria; Toxaemia: Concealed				
Accidental Haemorrhage	...		...	1

Cardiac Failure ; Toxaemia ; Delayed Chloroform Poisoning ; Forceps Delivery ...	1
Puerperal Debility following difficult Labour ; Hypostatic Pneumonia	1
Caesarian Section ; Contracted Pelvis ; Post-Operative Broncho-Pneumonia. ...	1
Contracted Pelvis ; Failed Forceps (Forceps applied) ; Post Operative Collapse ...	1
Uterine Haemorrhage ; Adherent Placenta	1
—	12

(b) Causes of Death not directly connected with Parturition (10 cases) :—

Influenza, ; Broncho-Pneumonia, Complicated with Childbirth	1
Cardiac Disease ; Pulmonary Embolism ...	1
Coronary Embolism ; Asthma ; Bronchitis (Puerperium)	1
Bronchial Asthma ; Syncope	1
Pulmonary Tuberculosis	2
Pulmonary Collapse	1
Pneumonia (Miscarriage 6 months) ...	1
Secondary Anaemia of long standing (Puerperal Sepsis)	1
Status Epilepticus ; Pyelitis	1
—	10

(c) Causes of Death associated with Pregnancy but not with Parturition (2 cases) :—

Hyperemesis Gravidarum	1
Incomplete Abortion ; Dilatation of Cervix ; Emptying of Uterus ; Post-Operative Shock ; Collapse	1
—	2

Report Under Midwives and Maternity Homes (Scotland) Acts, 1915 and 1927.

The following is a list of Midwives who, during 1935, intimated their intention to practise Midwifery in the City of Dundee.

NAME and ADDRESS.	C.M.B. Reg. No.	REMARKS.
Anderson, Mrs Isabella D.—197 Princes Street ...	2,863	Trained.
Andrews, Miss Dora B.—4 Boyd Place, Broughty Ferry	8,253	Trained.
Angus, Mrs. Clementina—96 King St., B.F. ...	3,057	Bona fide.
Arnott, Miss Jean—36 Dundonald Street ...	1,182	Bona fide.
Bowman, Mrs. Jessie—10 Hilltown ...	4,958	Trained.
Brodie, Miss Chrissie,—Craigie Nursing Home, ...	7,947	Trained.
Craig, Mrs. Margaret—10 Albert Street ...	6,994	Trained.
Dobson, Mrs Rachel H.—Elmridge, 6 Glamis Drive	4,423	Trained.
Duffus, Miss Mary—34 Victoria Street ...	2,567	Trained.
Gouk, Miss Margaret R.—10 Tofthill, Lochce ...	6,221	Trained.
Gowans, Miss Eliza—2 Erskine Street ...	5,925	Trained.
Gunn, Mrs. Sarah—9 Corso Street ...	5,404	Trained.
King, Mrs Ellen—53½ Perth Road... ..	755	Trained.
Lowe, Mrs. Jane R.—2 Brown Street ...	432	Trained.
Low, Mrs Helen—44 Ann Street	5,186	Trained.
(Died 9/7/35)		
Masson, Mrs. Jane—3 Tayview Buildings, B.F.	3,122	Bona fide
Neill, Miss Jane Y.—12 Brown Constable St.	7,434	Trained.
(Removed to 71 Ann Street 27/8/35)		
Ramsay, Mrs Ann C.—281 Hilltown	733	Bona fide.
Rickard, Mrs Helen M.—125 Perth Road ...	6,453	Trained.
Smith, Mrs. Jamesina—73 Church Street ...	1,553	Bona fide
Stewart, Miss Jean B.—77 Albert Street, ...	7,713	Trained.
(Removed to 5 Balgavies Avenue 21/5/35)		
Tulloch, Mrs. Isabella—20 Corso Street ...	6,231	Trained.
Thomson, Mrs Mary—16 Fleming Gardens, S. ...	10,225	Trained.
Williamson, Miss Edith 55 Dens Road ...	10,712	Trained.
Cotton, Miss Eliz. M.—Clement Park Maternity Home	11,157	Trained.
(Left town 20/7/27 for Northland, North Rd., Cardiff)		
Martin, Miss Violet M.—Clement Pk. Maternity Home	9,999	Trained.
Ross, Miss Johanna do. ...	11,461	Trained.
Snap, Miss Violet E. do. ...	8,644	Trained.
Castle, Miss Daisy do. ...	11,776	Trained.
Tippen, Miss Elizabeth do. ...	6,795	Trained.
Collings, Miss L. F. do. ...	12,098	Trained.

(1) In January, 1935, 28 midwives notified their intention to practise midwifery in Dundee. During the year 3 midwives gave notice of their intention to practise in Dundee. 2 midwives left town, and one died.

(2) This leaves on the local roll of midwives at the end of December, 1935, 28 names. 17 of the 28 are actually practising as midwives.

(3) The midwives attended a total of 1027 births (including 158 cases where the midwife acted as a midwife though a doctor was in attendance)—that is 29.1 per cent. of the total births occurring in the City, including stillbirths.

(4) The extent of the individual practice of each midwife varies, one midwife having 131 cases, another only attended 23 cases. The average to each midwife in practice is 60 cases.

(5) 86 visits were paid by the Inspector of midwives and her Assistant to the midwives' homes : 8 visits of inspection were paid to the 7 Registered Maternity Homes in Dundee.

(6) One post-graduate lecture was given to the midwives on 29th March, 1935, on " Hysterotomy at 5 months for Cardiac case " at the Maternity Hospital, Dundee Royal Infirmary.

The midwives have sent 459 mothers to ante-natal clinics or to private doctors for advice and supervision.

There has been no infringement of rules among the midwives, all their work being quite satisfactory. In January, 1935, a report was made to the Supervising Authority that a Handywoman in Lochee was taking cases alone, and she was reprimanded.

There has been a marked decrease in the total number of cases attended by midwives during the year—(1027 as compared with 1098 in 1934).

823 Notifications have been received from midwives as follows :

(1) Application for medical assistance—(a) Mother	...	701
(b) Child	...	76
(2) Notification of death—(a) Mother	...	2
(b) Child	...	2
(3) Notification of stillbirth	...	14
(4) Notification of liability to be a source of infection	...	11
(5) Notification of laying out a dead body	...	1
(6) Notification of artificial feeding	...	6
(7) Notification of patient's failure to follow advice	...	10

It is noteworthy that only 10 midwives' patients refused to follow advice as to obtaining Ante-Natal care, as compared with 23 in 1934.

401 Ante-Natal cases who were not complaining of illness were sent for examination to the Ante-Natal clinic.

Ante-natal (459).

Examinations ...	...	...	401
Purulent Discharges ...	...	...	13
Varicose Veins...	...	...	11
Pain (various) ...	...	...	9
Albuminuria ...	...	...	7
Swelling of Feet ...	...	...	4
Carious Teeth ...	...	...	4
Sickness ...	...	...	2
Headaches ...	...	...	2
Breathlessness ...	...	...	2
Abortion ...	...	...	1
Dimness of Vision ...	...	...	1
Skin Rash ...	...	...	1
Severe Constipation ...	...	...	1

Labour (205).

Ruptured Perinaeum ...	...	...	103
Prolonged Labour ...	...	...	71
Abnormal Presentation ...	...	...	8
Breech Presentation ...	...	...	5
Ante-partum Hæmorrhage ...	...	...	6
Post-partum Hæmorrhage ...	...	...	5
Exhaustion during Labour ...	...	...	2
Cardiac Condition ...	...	...	2
Placenta Prævia ...	...	...	1
Abnormal Swelling (Abdomen)	...	...	1
Contracted Pelvis ...	...	...	1

Post-natal (37).

Temperature ...	...	...	12
Phlebitis ...	...	...	4
Cough ...	...	...	4
Weakness ...	...	...	3
Rash ...	...	...	2
Mastitis...	...	...	2
Eclampsia ...	...	...	2
Pain (various) ...	...	...	2
Subinvolution ...	...	...	1
Rigor ...	...	...	1
Headache ...	...	...	1
Facial Paralysis ...	...	...	1
Collapse ...	...	...	1
Bronchial Asthma ...	...	...	1

Infants (77).

Feeble Infants ...	...	...	23
Ophthalmia Neonatorum ...	...	...	15
Stillbirths ...	...	...	12
Congenital Malformations ...	...	...	8
Icterus Neonatorum ...	...	...	3
Sickness ...	...	...	3
Cyanosis ...	...	...	3
Convulsions ...	...	...	3
Hæmatemesis ...	...	...	2
Melæna ...	...	...	1
Snuffles ...	...	...	1
Injury at Birth ...	...	...	1
Unclassified ...	...	...	2

BIRTHS IN AREA OR DISTRICT.

DUNDEE, 1935.

Total No. of Births during 1935 (uncorrected)	Total No. of Deaths of Newly-Born Children during 1935 (within 10 days)	Actual No. of Births Attended by Midwives during 1935	Actual No. of Deaths of Children occurring in the Practice of Midwives during 1935 (within 10 days of Birth)	Actual No. of Cases not attended at birth by a Doctor or Midwife during 1935	Deaths
5575	90	1027	19	1	1 (found dead)

CASES OF OPHTHALMIA NEONATORUM.

Total No. of Cases during 1935	Actual No. of Cases occurring in the Practice of Midwives during 1935	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1935
56	24	0

CASES OF PUERPERAL SEPSIS.

Total No. of Cases during 1935	Total No. of Deaths during 1935	Actual No. of Cases occurring in the Practice of Midwives during 1935	Actual No. of Deaths occurring in the Practice of Midwives during 1935	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1935	Deaths
21	4*	8	0	0	0
(Notifications)				Cases	Deaths

CASES OF PUERPERAL PYREXIA.

Total No. of Cases during 1935	Total No. of Deaths during 1935	Actual No. of Cases occurring in the Practice of Midwives during 1935	Actual No. of Deaths occurring in the Practice of Midwives during 1935	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1935	Deaths
36	2*	8	0	0	0

CASES OF STILL-BIRTH (DEAD BORN).

Total No. of Cases during 1935	Actual No. of Cases occurring in the Practice of Midwives during 1935
164	33

CASES OF EMERGENCY.

Total No. of Cases of Emergency, in which Medical Practitioners have been called in under Section 22 of the Midwives (Scotland) Act, 1915, during 1935, distinguishing the different cases of emergency			
Ante-natal	Labour	Post-natal	Infant
58	205	37	76
			Total
			376

401 Ante-natal cases who were not complaining of illness, were sent for examination to the Ante-natal Clinics and Private Doctors.

*4 cases notified as "Puerperal Sepsis"—Final diagnosis at death :—

2 PUERPERAL SEPTICAEMIA.

1 ACUTE INTESTINAL PERITONITIS FOLLOWING PUERPERAL PERITONITIS.

1 STATUS EPILEPTICUS, PYELITIS.

*2 cases notified as "Puerperal Pyrexia"—Final diagnosis at death :—

1 BRONCHO PNEUMONIA, INFLUENZA COMPLICATED BY CHILDBIRTH.

1 SECONDARY ANAEMIA OF LONG STANDING, PUERPERAL SEPSIS.

Health Visitors' Work (Maternity Services Only).

Total number of homes visited,	6,519
Total number of visits to these homes,	21,348
Average number of visits per home,	3
Total number of cases visited,	22,177

(a) Routine Visits :—

	1st visits.	Revisits.	Total.
Babies	2,963	12,945	15,908
Children (1-2) ...	—	5,321	5,321
Mothers, A.N. ...	11	15	26
P.N. ...	9	25	34

(b) Notifiable Diseases and Special Visits.

Ophthalmia Neonatorum	...	...	861
Infantile Diarrhoea	...	...	9
Puerperal Pyrexia	...	...	15
Puerperal Fever	...	...	2
Maternal Deaths Enquiries	...	...	1

Of the 2,963 babies visited for the first time :—

103 were premature

2860 were fulltime births

Of the 2,906 homes of the newly born visited for the first time the home conditions were :—very good, 277 ; good, 1,362 ; medium, 1,102 ; bad, 165.

Special information as to feeding of infants at birth and at 6 months :—

	Breast.	Partly Breast.	Mixed.	Artificial.	Still born.	Dead at first visit.	Total.
At first visit	2,371	106	37	254	119	76	2,963
At 6 months old	705	130	110	460	—	—	1,405

Ante-Natal Consultations.

1. Central A.N. Clinic.

REPORT BY MARGARET FAIRLIE, M.B., Ch.B.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending	...	...	...	...	377
(b) Total number of attendances	...	...	...	...	824
(c) Classified summary of conditions found :—New Cases, 342.					
Advice only	...	...	...	...	309
Not Pregnant	...	...	...	...	10
Conditions due to Pregnancy	...	...	...	...	9
Ante-Partum Hæmorrhage	...	...	...	...	1
Albuminuria	...	...	...	...	4
Vomiting	...	...	...	...	2
Oedema	...	...	...	...	1
Hydramnios	...	...	...	...	1
Conditions aggravated by Pregnancy	...	...	...	...	1
Discharge	...	...	...	...	1
Conditions complicated by Pregnancy	...	...	...	...	13
Contracted Pelvis	...	...	...	...	4
Malpresentations	...	...	...	...	5
Displacements	...	...	...	...	1
Various	...	...	...	...	3
(d) Number of Cases :—					
		New Cases.		Re-visits.	
(1) Referred to Ante-natal Ward	...	12		8	
(2) Referred to Family Doctor	...	4		1	
(3) Treated at Clinic	...	326		473	

Post-Natal and Other Consultations.

(a) Total number of Post-Natal cases attending	...	...	...	...	11
(b) Total number of attendances	...	...	...	...	12
(c) Classified summary of conditions found :—New Cases, 11.					
Advice	...	...	...	...	6
Displacements	...	...	...	...	2
Anæmia	...	...	...	...	1
Various	...	...	...	...	2

(d) Number of Cases :—

	New Cases.	Re visits.
(1) Referred to D.R.I. ...	3	0
(2) Referred to Family Doctor ...	2	0
(3) Treated at Clinic ...	6	1

2. Polepark A.N. Clinic.

REPORT BY MARGARET SCOTT-DICKSON, M.B., Ch.B., D.P.H.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending ...	201
(b) Total number of attendances ...	319
(c) Classified summary of conditions :—New Cases ...	185
Advice only ...	106
Conditions due to pregnancy ...	12
Albuminuria ...	6
Vomiting ...	6
Conditions aggravated by Pregnancy ...	31
Discharge ...	7
Varix ...	24
Conditions complicating Pregnancy ...	36
Contracted Pelvis ...	2
Malpresentations ...	9
Twins ...	1
Various ...	24
Number of Cases :—	

	New Cases.	Re-visits
(1) Referred to Ante-Natal Ward	2	1
(2) Referred to Family Doctor	1	0
(3) Treated at Clinic	182	133

Post-Natal Consultations.

(a) Total number of Post-Natal mothers attending ...	3
(b) Total number of attendances ...	4
(c) Classified summary of conditions found :—New Cases	2
Advice ...	1
Various ...	1

(d) Number of cases :—

	New Cases.	Revisits.
(1) Referred to Dundee Royal Infirmary	0	0
(2) Referred to Family Doctor ...	0	0
(3) Treated at Clinic ...	2	2

Child Welfare Consultations.

Eight weekly sessions of 2½ hours each were held in Dundee and Broughty Ferry, with five weekly sessions in Dundee and two in Lochee for special Ultra Violet Light treatment.

	Cases.	Attendances.
(1) Under 1 year of age ...	1,567	14,588
(2) Over 1 year of age ...	1,236	16,060
(3) Mothers—A.N. ...	7	23
P.N. ...	25	52
	<hr/> 2,835	<hr/> 30,723

Diseases recorded on admission to the Clinics :—

(1) Children under 1 year of age.

Of the 1,140 children under 1 year of age attending the 6 clinics for the first time, 114 (10%) showed no disease or congenital defect. The remaining 1,026 showed 2,231 diseases or defects, classified as follows :—

Diseases of the Digestive System	...	...	...	1,148
Diseases of the Respiratory System	...	...	...	253
Diseases of Nutrition :—				
Rickets	...	...	...	6
Other disorders of Nutrition	...	...	...	17
			—	23
Diseases of the Skin	...	...	...	218
Diseases of the Nervous System	...	...	...	0
Diseases of the Eye	...	...	...	44
Diseases of the Ear, Nose and Throat	...	...	...	10
Congenital Defects	...	...	...	474
Surgical Conditions	...	...	...	14
Infectious Diseases :—				
Whooping Cough	...	...	...	1
Various	...	...	...	46
			<hr/>	<hr/> 2,231

(2) Children over 1 year of age.

Of the 69 children between one and five years of age attending the clinics for the first time, 4 (5%) showed no disease or congenital defect. The remaining 65 showed 113 diseases or defects, classified as follows:—

Diseases of the digestive system	13
Diseases of the respiratory system...	18
Diseases of nutrition :—	
Rickets	25
Other disorders of Nutrition	4
	— 29
Diseases of the skin	21
Disease of the nervous system	1
Diseases of the eye	5
Diseases of the ear, nose, and throat	4
Congenital defects	10
Surgical conditions	7
Infectious Diseases :—	
German Measles	1
Various	4
	— 115

Special Treatment Centres.

A. Dental Clinic.

Report by H. Gordon Campbell, L.R.C.P. & S.E., L.D.S.

(a) Number of attendances :—

(1) Mothers	108
(2) Children	143
	— 251

(b) Classified summary of conditions recorded on admission :—

(1) Mothers—(114.)

Advice only, 2 ; Dental Caries, 64 ; Alveolar Abscess, 3 ; Septic Roots, 6 ; Pyorrhoea, 1 ; Gingivitis, 13 ; Tartar, 6 ; Periodontitis, 4 ; Hypoplasia, 1 ; Ulcer of Gum, 1 ; Inflamed Gum 1 ; Erupting Molar, 1 ; Painful Dentures, 5 ; Impressions, 6.

(2) Children—(143).

Advice, 1 ; Dental Caries, 57 ; Alveolar Abscess, 54 ;
Gingivitis, 7 ; Tartar, 5 ; Periodontitis, 6 ; Erupting
Teeth, 3 ; Defective Enamel, 5 ; Septic Roots, 1 ;
Accident 1; Injury, 1; Stomatitis, 1, Enlarged Gland, 1.

(c) Number of Dentures supplied, 1

(d) Gross cost of Dentures supplied ... £2 10s 0d

Sums recovered from patients ... £2 8s 6d
(For Dentures supplied previously).

(e) Classified summary of treatment carried out :

Advice, 25 ; Extractions (temporary) 5 ; (permanent)
100 ; Fillings (temporary) 20 ; (permanent) 7 ;
Treatment of Alveolar Abscess, 60 ; Dressings, 47 ;
Aconite and Iodine treatment, 40 ; Special gum treat-
ment, 6 ; Brushing and Scaling, 27 ; Impressions for
Dentures, 8 ; Repairs to Dentures, 1.

B. Ultra Violet Light Clinic.

Number of Cases.

	New Cases.	From 1934.	Total.	Total Attend.
Babies ...	50	11	61	960
Children ...	153	41	194	3,392
	203	52	255	4,352

Babies.

			Not Improved	Not Improved	Not Attending	Still Attending	Total
Not thriving	...	...	1	0	0	0	1
Debility	...	...	7	0	2 (1 Hosp)	1	10
Marasmus	...	...	5	1	2 (1 died)	1	9
Anæmia	...	...	0	0	1	0	1
Late Dentition	...	...	10	1	12 (1 Wh.C)	1	24
Incipient Rickets	...	...	0	0	0	0	0
Rickets	...	...	6	1	3	3	13
Chronic Bronchitis	...	...	0	0	1 (K.C.H.)	0	1
Very Large Head	...	...	0	0	1	0	1
Arthritis	...	...	0	0	1	0	1
			29	3	23	6	61

Children.

Not thriving	...	...	1	0	0	1	2
Debility	...	...	29	4	26 (1 died)	8	67
Malnutrition	...	...	1	0	1 (Left Town)	0	2
Anaemia	...	...	1	2	1	0	4
Late Dentition	...	...	8	1	2 (2 Wh. Congh)	1	12
Late Walking	...	...	2	0	0	2	4
Rickets	...	...	24	3(1 died)	34 (1 Wh. Congh)	22	83
Chronic Bronchitis	...	...	0	0	3 (1 Left Town)	2	5
Chronic Asthma	...	...	0	0	1	0	1
Recurrent Croup	...	...	1	0	0	0	1
Convulsions	...	...	0	0	1	0	1
Mentally Deficient	...	...	0	0	0	1	1
Post-Measles Debility	...	...	4	0	2	1	7
Post-Whooping Cough Debility	...	...	3	0	0	0	3
Weak Leg	...	...	0	0	1	0	1
			74	10	72	38	194

Day Nurseries.

(a) Number of attendances :—

(1) Under 1 year of age	...	...	...	...	4,063
(2) Over 1 year of age	...	...	...	...	14,053

(b) Charges made :—

4s. 6d. for 5½ day week for each child, with a reduction of 1s. in the case of 2 members of 1 family, and 2s. a week if 3 members of the same family are attending at the same time.

Food and Milk.

Number of applications made for food and milk :—

Total applications	...	...	...	704
Applications granted	...	...	...	569
Applications disallowed	...	...	...	135

Number of cases who received free food or milk :—

(1) Mothers	...	...	...	...	17
(2) Children	...	...	...	...	501

All these cases were certified on medical grounds as requiring extra food or milk, and all were in necessitous circumstances.

The gross cost of the food supplied was £1271 9s. 1d.
398 tins of Dried Milk were sold at cost price at the Clinics ;
Total—£34 13s. 5d.

3 children were admitted to the Day Nurseries free of charge; and one child at a reduced rate, from periods of from two to four weeks.

Puerperal Sepsis (21 Cases)

	Notified	Primipara	Multipara	Admitted to Hospital	Nursing Home	Nursed at Home	Recovered	Died
Doctors ...	12	3	1	5	...	...	3	2
Midwives ...	...	5	2	5	...	...	5	...
Doctor & Midwife ...	...	1	2	2	...	...	2	...
Maternity Ward-								
In-patient ...	6	2	4	6	...	...	5	1
Out-patient...	1	...	1	1	...	...	1	...
Nursing Home	...	...	...	...	...	...	...	...
Maryfield								
Hospital ...	2	1	1	2	...	...	1	1
Totals ...	21	10	11	21	...	...	17	4

		RECOVERED		DIED	
		Primipara.	Multipara.	Primipara.	Multipara.
Where delivered :—					
Home ...	...	5	5	2	...
Maternity Ward D.R.I.					
In-patients ...	...	1	4	1	...
Out-patients ...	...	...	1	...	...
Clement Pk. Mat. Home	...	...	...	...	...
Nursing Home	...	...	...	...	...
Maryfield Hospital	...	...	1	1	...
		6	11	4	...

Where treated :—(All the cases were treated at King's Cross Hospital).					
Home ...	...	...	...	...	...
D.R.I. ...	...	...	...	...	...
King's Cross Hospital	6	11	4	...	...
Nursing Home	...	...	...	...	...
	6	11	4		

Of the cases which recovered the home conditions were good in 11, bad in 5, and not known in 1 ; and of the cases which died, the home conditions were good in 3, and bad in 1.

PARTICULARS OF CASES.

	Primipara.	Recovered.	Died.	Total.
Normal Confinements		3	1	4
Normal Confinement ;				
Ruptured Perinaeum		1	...	1
Instrumental delivery		1	...	1
Instrumental delivery				
with ragged membranes	1	1
Breech Presentation (septic				
sores on body)	1	1
Incomplete Abortion		1		1
Status Epilepticus				
with Pyelitis	1	6 4 10

Multipara.	Recovered.	Died.	Total.			
Normal Confinements...	8	....	8			
Instrumental delivery	1	...	1			
Incomplete Abortion	2	...	2	11	0	11

Puerperal Pyrexia (36 Cases).

	Notified	Primipara	Multipara	Admitted to Hospital	Nursing Home	Nursed at Home	Recovered	Died
Doctor	20	2	1	3	—	—	3	—
Midwives	—	2	5	5	—	2	7	—
Doctor and Midwife	—	1	1	2	—	—	2	—
Maternity Ward, I.P.	11	7	4	11	—	—	11	—
O.P.	4	—	5	4	—	1	5	—
Maternity Home ...	—	4	3	5	2	—	6	1
Maryfield Hospital ...	1	1	—	1	—	—	1	—
	36	17	19	31	2	3	35	1

Where Delivered.	Recovered.		Died.	
	Primipara.	Multipara.	Primipara.	Multipara.
Home	4	7	—	—
Maternity Ward, D.R.I.				
I.P.	7	4	—	—
O.P.	—	5	—	—
Clement Park				
Maternity Home	4	2	—	1
Nursing Homes	1	—	—	—
Maryfield Hospital ...	1	—	—	—
	17	18	—	1

Where Treated.				
Home	—	2	—	—
D.R.I.	—	1	—	—
King's Cross Hospital	16	14	—	1
Nursing Home...	1	1	—	—
	17	18	—	1

Of the cases which recovered, the home conditions were good in 19; bad in 10, and not known in 6; and of the cases which died, the home conditions were not known.

PARTICULARS OF CASES.

Primipara.	Recovered.	Died.	Total.			
Normal Confinements...	7	...	7			
Normal Confinements ; Ruptured Perinaeum	2	...	2			
Instrumental delivery	8	...	8	17	0	17
<hr/>						
Multipara.	Recovered.	Died.	Total.			
Normal Confinements	10	1	11			
Normal Confinements ; Ruptured Perinaeum	5	...	5			
Normal Confinement ; Post Partum Haemorrhage ; Albuminuria....	1	...	1			
Abortion ...	2	...	2	18	1	19
<hr/>						

2 cases had been notified as Puerperal Pyrexia, in which the final causes of death were—1 Broncho-Pneumonia ; Influenza Complicated by Childbirth ; 1 Secondary Anaemia of long standing ; Puerperal Sepsis

4 cases had been notified as Puerperal Sepsis, in which the final causes of death were :—2 Puerperal Septicaemia ; 1 Acute Intestinal Peritonitis following Puerperal Peritonitis ; 1 Status Epilepticus Pyelitis.

3 cases of Puerperal Fever and 8 cases of Puerperal Pyrexia followed instrumental delivery. There was 1 death from Puerperal Fever.

Number of cases of Puerperal Fever and Puerperal Pyrexia where the Local Authority provided Assistance on the request of the Medical Practitioners for :—

(i) Consultant Service	...	...	...	2
(ii) Bacteriological Examinations	...	...	...	—
(iii) Skilled Nursing at Home	...	...	...	3
(iv) Hospital Treatment	...	...	...	50

Notifications were sent promptly ; and, in the majority of cases the opportunity of removal to Hospital for treatment was taken advantage of immediately.

Ophthalmia Neonatorum.

	Doctors	Midwives	Doctor and Midwife	Mat. Hosp.		Maryfield Hospital.	Maternity Home.	M. S. Dept.	Eye Institution	No Attendant	Total.
By whom notified...	33	3	0	1	1	2	1	14	1	—	56
By whom attended	7	18	6	12	7	3	3	—	—	—	56
Total No. of Births attended in 1935	407	869	158	1719		56	320	—	—	2	3531

Treated in Institutions	In Hospital	Treated at Home	Type of Case		Result		Died during Treatment	Left Town during Treatment	Not Visited	Initial Visits	Re-visits
			Severe	Mild	Complete Recovery	Injury to Sight					
King's Cross H.	6	9	5	51	56	—	2	1	1	55	806
Maryfield H.	2										
Dundee R. In.	1										

Of the 5 severe cases—1 was attended by Doctor at birth ; 2 were attended by Midwives, and 2 were Maternity In-Patients.

Smears were taken in 50 cases. 3 were positive ; 6 were suggestive ; 41 were negative.

In 6 cases smears were not obtained, 5 were in institutions, and 2 were clear at first visit.

3 cases of severe purulent conjunctivitis were notified.

In no case was there any loss of vision.

Rickets.

6 infants under one year showed clinical signs of commencing Rickets.

All these cases were between 6 and 11 months, and their feeding was as follows :—entirely breast fed, 1 ; breast fed for periods ranging from 6 weeks to 6 months, then on fresh cow's milk, 4 ; fed on artificial food, 1.

Of the 69 children admitted between the ages of 1 and 5 years 25 (36%) showed some signs of clinical rickets on admission.

All these children were under 2 years of age and enquiries as to the feeding from birth elicited the following information :—

Breast fed for less than 1 year	...	3 out of a total of	21
Breast fed for over one year	...	2 out of a total of	8
Partly Breast fed (for a few months only)		7 out of a total of	16
Mixed feeding (Breast and other food)		0 out of a total of	2
Fed on fresh cow's milk	...	8 out of a total of	13
Fed on artificial food	...	5 out of a total of	9

Deaths from Infantile Diarrhoea.

14 deaths occurred from infantile diarrhoea during 1935.

Of these 6 were breast fed ; 1 was partly breast fed ; 1 was mixed feeding (breast and other food) ; 6 were artificially fed.

With reference to feeding, the ages at which these infants died were as follows :

	1st Mnth.	2nd Mnth.	3rd Mnth.	4th Mnth.	5th Mnth.	6th Mnth.	7th Mnth.	8th Mnth.	9-12 Mnth.	Tl.	N.V
Breast ...	0	1	0	0	0	0	0	1	4	6	
Partly Breast	0	0	0	1	0	0	0	0	0	1	
Mixed ...	0	0	0	1	0	0	0	0	0	1	
Artificial ...	0	0	0	0	1	0	1	1	3	6	
Totals ...	0	1	0	2	1	0	1	2	7	14	0

Of the 14 deaths from infantile diarrhoea in which particulars were obtained :—

5 occurred in houses of one room, in which there were 21 occupants.

5 occurred in houses of two rooms, in which there were 22 occupants.

4 occurred in houses of three rooms, in which there were 25 occupants.

The family history showed that in these families :—

29 were still alive.

19 had died, of which 17 had died in the first year of life.

None of the mothers worked outside their own homes.

Educational.

The usual lectures were given to probationers at the Day Nurseries, in preparation for the examination for the Certificate of the National Society of Day Nurseries.

A Sewing Class was held in connection with the Central Clinic. 21 classes were held, each session lasting about two hours. There were 30 mothers enrolled, and 44 garments were made,

Voluntary Agencies.

DUNDEE VOLUNTARY HEALTH WORKERS' ASSOCIATION.

During the year 544 knitted garments and 453 sewn garments were made by the members of the Association for the clinics; and 338 were provided for the Day Nurseries.

971 garments supplied by the Association were distributed at the clinics. Of these 247 were sold at cost price, 694 at quarter cost price, and 30 were given free on the recommendation of the Medical Officer.

The following voluntary institutions are also associated with the Scheme, and receive an annual grant from the Dundee Town Council :—

SALVATION ARMY HOME.

Report of the Maternity Home—Florence Booth House, Clement Park, Lochee.

Number of non-paying cases in the Home on				
January 1st, 1935	...	...	...	27
Number of non-paying cases admitted during 1935				38
Number of cases confined in the Home during 1935				28
Number of days in the Home during 1935			...	9,308

LOCHEE DAY NURSERY.

Number of new cases admitted :—

Under 1 year of age	...	...	...	12
Over 1 year of age	...	...	...	21

Total attendances :—

Under 1 year of age	...	...	...	1,086
Over 1 year of age	...	...	...	1,330

NURSERY SCHOOL.

Number of children admitted in 1935	...	...	60
Re-admitted, from 1934	...	...	30
Average number on Roll	...	...	30
Total number of attendances in 1935	...	...	6,165

Infant Department :—

Number on Roll	...	...	...	...	6
Total number of attendances in 1935...	...	...	...	...	908

ST. RONAN'S HOME.

This is a Preventative and Rescue Home, which admits pregnant and nursing women.

Number of cases in the Home on January 1st, 1935	....	14
Number of cases admitted during 1935	... ..	31

PRE-SCHOOL AND SCHOOL MEDICAL SERVICES.

Report by DR. A. E. KIDD,
Chief School Medical Officer.

DUNDEE,
August, 1936.

I HAVE the honour to submit for your information a report on the work of the Pre-School and School Medical Services for the year ending 31st July, 1936.

Number of schools under inspection	....	....	....	....	43
Average number of children on roll for the past session	....	28,348			
Percentage of average attendance for the whole year	....				91

Staff.

During the past session Nurse Ferguson, who was temporarily employed, left to take the Health Visitors Instruction Course in Edinburgh, and her place was taken by Nurse G. H. Smith.

Summary of Year's Work.

Attendance at Treatment Clinics	....	....	....	....	53,866
Examinations for Attendance Certificates	....	....	....	....	23,038
Routine Examinations in schools	....	....	....	....	9,701
Special Examinations in schools	....	....	....	....	4,328
Examination as to "fitness" for employment	...	...	...	...	711
Nurses' Visits to schools	....	....	....	....	926
Doctors' Visits to schools	....	....	....	....	465
Attendance at Cleansing Station	....	....	....	....	4,791
Children inspected before going to Holiday Homes	....	....	....	....	1,106
Examinations under the Children and Young Persons (Scotland) Act, 1932	...	...	...	...	35

New Schools and Alterations in Schools.

Extensions are at present in progress at Rockwell Primary School; SS. Peter and Paul School; St Mary's School, Lochee,

During the extension at St. Mary's School, Lochee, temporary accommodation has been found in a church hall, and in a hut erected on ground nearby.

The extension of Lawside Convent School has now been completed and the rooms have been occupied.

Organisation and Administration.

During the past session occupation of new housing areas and slum clearance have necessitated a re-arrangement of the districts into which the City is divided. These alterations have been carried out in order to equalise the work of the Health Visitors in their respective districts.

In order to co-operate with the Ministry of Labour and the Local Committee for Juvenile Employment in regard to the finding of suitable occupations for children leaving school, certain alterations have been made in the Routine Medical Inspection of School Children in the City. During the last half of the school session 1935-36 Medical Inspection has been based on the following plan, and examinations carried out.

- (1) Children coming into school for the first time
- (2) Pupils leaving the Infant Department and entering the Junior Division (when special attention is paid to the vision of children).
- (3) Pupils entering Senior 1 for the first time.
- (4) Pupils who are leaving school at the leaving dates:—15th November, 1st February, 15th April and 15th August
- (5) Pupils of fifteen to sixteen years of age

These alterations in the Routine Medical Inspection have been made in order that :—

(a) There may be more information at the disposal of the headmasters of advanced division schools as to the physical conditions of those pupils coming to their schools. The cards of those children who were examined in Senior 1 show any defect noted at previous examinations, and these cards are gone over by the headmaster and doctor in consultation, so that any disabilities which might affect the course of training the pupil would take may be pointed out by the doctor.

(b) The inspection of all pupils just before leaving at the leaving dates provides much information of value to the Local Committee for Juvenile Employment. The cards of those pupils are gone over with an official from the Juvenile Employment Centre, and any defect is noted on the Form E.D. 211. This information is then at the disposal of the Local Committee when visiting schools and advising children as to the selection of some suitable form of employment. Owing to the defects noted some occupations may be indicated while others would be entirely negatived.

During the year the Health Visitors have carried out visits to Pre-school and School Children as follows :—

Infectious Disease	....	...	...	3358
Tuberculosis	...	...	...	2503

Visits to children found defective :—

Age 1-5...	....	...	...	319
Over 5 ...	...	...	...	2784

Re-visits to such cases :—

Age 1-5...	...	...	...	1588
Over 5 ....	...	...	...	5991

				16543

Total number of 1-5 children visited by H.V.....	...	4060
Total number of visits paid to 1-5 children	...	6383
Schools visited by Health Visitors	...	926
Homes of Pre school and School Children visited by Health Visitors	....	14399

Supervision of Infectious Disease.

During the past session 3029 certificates for exclusion from school on account of infectious disease have been issued. During the first half of the school session there was no marked increase in the amount of infectious disease in the City, but with the commencement of the second half of the session Mumps became the cause of many children being absent from school, while later in the session Measles was responsible for the exclusion of very many children. The largest number of cases notified as Measles being recorded in the month of April.

No alteration has been made in the organisation of the work of supervising these cases of infectious disease. The Health Visitors pay regular visits to the homes and advise parents as to the best methods of nursing, and the measures they may take to prevent the spread of the disease. Early notification by schools, parents and doctors, helps the work of this department in its preventive work.

Cleansing Station.

The attendances at this Institution have been 4791. Irregular attendance still continues to be a feature of this department. Parents are too easily satisfied with the progress of treatment and either stop coming or appear at very irregular intervals. This causes long delay in curing the disease, many cases of Scabies going on for very much longer than they should, owing to irregular attendance.

Presence of Parents at Inspection.

The number of parents who have attended Routine and other Inspections was 5456. Parents know now that it is the Health Visitor from their district who attends the Routine Inspections in school, and in many cases the parents do not attend, giving as their reason that they know the nurse will bring a message if anything is found to be wrong with their children. While this shows how harmoniously the work of the districts is carried on, the Medical Inspection Staff would welcome an increase in the number of parents attending inspections. Often parents bring younger children with them and here we have an opportunity of getting in early contact with the pre-school child and frequently defects in these younger children can be pointed out to the parent so that treatment can be obtained before the child comes to school.

Any means whereby we can encourage parents to have defects remedied before children come to school is of great advantage to the educational progress of the children.

Physical Condition of School Children.

(1) ROUTINE EXAMINATIONS.

Boys ...	...	...	...	...	...	5,006
Girls	4,695
Boys and Girls	9,701

(2) SPECIAL EXAMINATIONS

Boys and Girls	4,328
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(3) EXAMINATIONS AS TO "FITNESS" FOR EMPLOYMENT.

Boys	569
Girls	142
Boys and Girls	711

Clothing.

		Boys.	%	Girls.	%	Boys & Girls.	%
Number examined	...	5,006	—	4,695	—	9,701	—
Satisfactory	...	5,006	100	4,693	99	9,699	99
Unsatisfactory	...	—	—	2	—	2	—
In need of repair	...	38	—	12	—	50	—
Clothing clean	...	4,989	99	4,684	99	9,673	99
Clothing dirty	...	17	—	11	—	28	—

Footgear.

Number examined	...	5,006	—	4,695	—	9,701	—
Satisfactory	...	5,000	99	4,692	99	9,692	99
Unsatisfactory	...	6	—	3	—	9	—
Barefoot	...	—	—	—	—	—	—

We still see cases where the boots appear to be satisfactory, but on examination the soles are found to be badly worn and in need of repair. If simple repairs were carried out there would be a considerable saving as boots are often taking for mending too late.

Cleanliness of Head.

		Boys.	%	Girls.	%	Boys & Girls.	%
Number examined	...	5,006	—	4,695	—	9,701	—
Vermin	...	6	—	41	—	47	1
Nits	...	37	—	458	9	495	5
Clean	...	4,087	99	4,675	99	8,762	99

Percentage for 1926-27.

Vermin	...	1	2	2
Nits	...	4	22	13
Clean	...	98	97	98

Percentage for 1931-32.

Vermin	...	—	1	1
Nits	...	2	12	7
Clean	...	99	99	99

Cleanliness of Body.

				Boys &			
		Boys.	%	Girls.	%	Girls.	%
Number examined	...	5,006	—	4,695	—	9 701	—
Vermin	... ..	1	—	1	—	2	—
Vermin marked	...	75	1	92	2	167	2
Clean	... ..	4,988	99	4,685	99	9,673	99

Percentage for 1926-27.

Vermin	...	2	1	1
Vermin marked		7	7	7
Clean	...	97	98	97

Percentage for 1931-32.

Vermin	...	—	—	—
Vermin marked		4	2	3
Clean	...	99	99	99

The presence of vermin on the head, body and clothing of school children still continues to be a matter requiring constant and continued attention. Notification to parents is as a rule attended to at once. Actual vermin are removed, and continued combings reduce the number of nits. When it is noted that no more vermin are present the regular combings are very often discontinued while nits still remain in the hair, with the inevitable result that vermin again hatch out and the whole process has to be gone over from the beginning.

Condition of Skin.

				Boys &			
		Boys.	%	Girls.	%	Girls.	%
Number examined	...	5,006	—	4,695	—	9,701	—
Head—							
Ringworm...	...	—	—	—	—	—	—
Impetigo	... ..	111	2	78	2	189	2
Favus	... ..	1	—	—	—	1	—
Other diseases	...	43	1	49	1	92	1

Body—		Boys.		Girls.		Boys and Girls.	
			%		%		%
Ringworm...	...	1	—	1	—	2	—
Impetigo ...	...	54	1	72	2	126	1
Scabies ...	...	4	—	7	—	11	—
Other diseases	...	60	1	57	1	117	1

Nutrition.

Number examined ...	5,006	—	4,695	—	9,701	—
Above average ...	1,717	35	1,539	33	3,256	33
Average ...	2,925	58	2,709	58	5,634	58
Below average ...	340	7	403	8	743	8
Very bad ...	24	—	44	1	68	1

Percentage for 1926-27

Above average	39	29	34
Average	58	66	62
Below average	3	4	4
Very bad	—	—	—

Percentage for 1931-32

Above average	27	27	27
Average ...	66	66	66
Below Average	7	7	6
Very Bad ...	—	—	—

The provision of two course meals has resulted in an improvement in the children partaking, but one would like to see more time spent over the meal, as in too many cases the food is bolted.

Many children have stopped taking their daily milk ration, the reason given by parents being that the child cannot take a proper mid day meal. This points to the fact that it is better to give the milk earlier in the morning and not at the 11 o'clock interval. In Schools where the milk is given between 9 and 10 o'clock there is not the same falling off in the numbers of those taking milk. If the milk were given between 9 and 10 o'clock it would be of benefit to such children as had had only a scanty breakfast.

The following reports have been received from the School Medical Officers :—

Dr. Gerrard writes :—

“ At the conclusion of another year of supplying milk in schools I would gladly add my report in its favour. There is definite improvement in the health of the children who have been supplied continuously with milk, and it is most satisfactory to note that parents who have been advised to let their children have milk on account of the state of their health have tried most faithfully to do so.

I would again stress the importance of serving the milk to the children early in the forenoons when it would in no way affect the appetite for dinner. This has been practised in certain schools, and where the children are under supervision for dinner either at the dining centres or in school, as in the case of Fairmuir Special School, it has been proved that it in no way interferes with the readiness for a good meal. The number of children who receive such meals continue to derive great benefit from them.

Speaking generally, the numbers of children taking milk has decreased but wherever possible and whenever advised the parents have co-operated willingly to the scheme, and the results are most satisfactory.”

Dr. Lesslie states :—

“ The nutrition of those children who have been receiving free dinners in school is good, and is especially so amongst those who have been receiving dinners for some years.

It is to be regretted that the consumption of milk in schools has greatly decreased during the past session. There is certainly a decided improvement in those children who have been taking milk regularly, but I think more children would benefit if the milk was served at an earlier hour, as so many children seem to be unable to take a proper breakfast, and the later service of milk undoubtedly prevents a large number of children from enjoying a full mid-day meal. A service of milk about 9.30 a.m. would help both types of children.”

Dr. Imrie reports :—

“ The number of school children taking advantage of the milk scheme has unfortunately fallen since last year. In most

schools however it has been found that a certain minimum percentage of children have continued the milk and the numbers do not fall below this level.

The additional nourishment provided at school undoubtedly plays a part in the production of a better nutritonal state among the school children."

Teeth.

	Boys.	%	Girls.	%	Boys and Girls.	%
Number examined ...	5,006	—	4,695	—	9,701	—
Perfect	206	4	204	4	410	4
Sound	798	16	742	16	1,540	16
1-4 decayed	2,576	51	2,475	53	5,051	52
5 or more decayed ...	1,426	29	1,274	27	2,700	28
Oral sepsis	247	5	254	5	501	5

Nose and Throat.

Number examined ...	5,006	—	4,695	—	9,701	—
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Nose—

Catarrh	449	9	390	8	839	9
Obstruction ...	27	—	19	—	46	1
Other diseases ...	11	—	9	—	20	—

Throat—

(a) Tonsils—

Slightly enlarged	848	17	827	18	1,675	17
Much enlarged	189	4	197	4	386	4

(b) Adenoids—

Probably present	213	4	186	4	399	4
Present ...	28	—	30	1	58	1

(c) Other diseases	31	—	33	1	64	1
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Glands—

	Boys.	%	Girls.	%	Boys and Girls.	%
Number examined ...	5,006	—	4,695	—	9,701	—
Submaxillary—						
Enlarged ...	864	17	689	15	1,553	16
Much enlarged	3	—	2	—	5	—
Suppurating	—	—	—	—	—	—
Cicatrices ...	38	1	31	1	69	1
Cervical—						
Enlarged ...	435	9	337	7	672	7
Much enlarged	2	—	—	—	2	—
Suppurating ...	—	—	—	—	—	—
Cicatrices ...	39	1	44	1	83	1
Mouth Breathers ...	329	7	229	5	558	6

External Eye Disease.

Number examined ...	5,006	—	4,695	—	9,701	—
Strabismus ...	192	4	175	4	367	4
Nystagmus ...	2	—	1	—	3	—
Blepharitis ...	173	3	171	4	344	4
Conjunctivitis ...	97	2	86	2	183	2
Corneal Nebulae ...	6	—	8	—	14	—
Corneal Ulcer ...	1	—	—	—	1	—
Other diseases ...	35	1	38	1	73	1

Percentage in 1926-27.

Strabismus ...	...	3	3	3
Blepharitis ...	...	2	2	2
Conjunctivitis ...	...	1	1	1

Percentage in 1931-32.

Strabismus ...	...	2	3	3
Blepharitis ...	...	3	2	3
Conjunctivitis ...	...	3	2	2

Visual Acuity.

6/6 indicates that at a distance of 20 feet a child can see letters.
6/16 inch in size.

6/9 letters	8/16	„	„	„
6/12	„	11/16	„	„
6/18	„	17/16	„	„

	Boys.	%	Girls.	%	Boys and Girls.	%
Number examined ...	3,586	—	3,336	—	6,922	—
6/6	2,716	76	2,499	75	5,215	75
6/9-6/12	541	15	516	15	1,057	15
6/18 or worse ...	329	9	321	10	650	10

Percentage for 1926-27.

6/6	73	69	70
6/9-6/12	19	21	20
6/18 or worse ...	8	10	9

Percentage for 1931-32.

6/6	9	77	78
6/9-6/12	14	15	14
6/18 or worse ...	7	8	8

Ears.

Number examined ...	5,006	—	4,695,	—	9,701	—
Otorrhoea	55	1	44	1	99	1
Wax	167	3	176	4	343	4
Other diseases ...	4	—	9	—	13	—

Hearing.

Number examined ...	5,006	—	4,695	—	9,701	—
Somewhat deaf ...	39	—	27	1	66	1
Markedly deaf ...	—	—	2	—	2	—

Speech.

Number examined ...	5,006	—	4,695	—	9,701	—
Defective articulation	35	1	40	1	75	1
Stammer	20	—	6	—	26	—

Retarded Condition.

Number examined ...	5,006	—	4,695	—	9,701	—
" Retarded " ...	10	—	10	—	20	—

Heart and Circulation.

Number examined ...	5,006	—	4,695	—	9,701	—
Organic—						
Congenital	2	—	3	—	5	—
Acquired	17	—	21	—	38	1
Functional	27	—	40	—	67	1
Anaemia	497	10	452	9	949	10

	Boys.	%	Girls.	%	Boys and Girls.	%
Percentage for 1926-27.						

Anaemia		7		5		6
----------------	--	---	--	---	--	---

Percentage for 1931-32.

Anaemia		6		7		7
----------------	--	---	--	---	--	---

Lungs.

Number examined ...	5,006	—	4,695	—	9,701	—
Bronchitis	189	4	175	4	365	4
Tuberculosis	3	—	3	—	6	—
? Tuberculosis	11	—	13	—	24	—
Other diseases	13		6		19	—

Nervous System.

Number examined ...	5,006	—	4,695	—	9,701	—
Epilepsy	—	—	—	—	—	—
Chorea	3	—	1	—	4	—
Infantile Paralysis ...	5	—	6	—	11	—
Other diseases	—	—	2	—	2	—

Tuberculosis (Non-Pulmonary).

Number examined ...	5,006	—	4,695	—	9,701	—
Glandular	6	—	1	—	7	—
Bones and Joints	1	—	5	—	6	—
Abdominal	1	—	2	—	3	—
Skin	—	—	—	—	—	—
Other forms	—	—	—	—	—	—

Deformities.

Number examined ...	5,006	—	4,695	—	9,701	—
Bow Leg	28	—	17	—	45	—
Knock Knee	22	—	19	—	41	—
Cleft Palate	2	—	5	—	7	—
Spinal Curvature	8	—	12	—	20	—
Rickety Chest	127	2	56	1	183	2
Wry Neck	8	—	4	—	12	—
Club Foot	2	—	1	—	3	—
Congenital	6	—	9	—	15	—
Acquired (non-rachitic)	3	—	3	—	6	—

Rickets.

			Boys and Girls.					
			Boys.	%	Girls.	%	Girls.	%
Number examined	...	...	5,006	—	4,695	—	9,701	—
Slight...	...	...	177	3	83	2	260	3
Marked	...	...	35	1	34	1	69	1
Percentage for 1926-27.								
Slight	...	...		5		2		3
Marked	...	...		1		1		1
Percentage for 1931-32.								
Slight	...	...		4		2		3
Marked	...	...		1		—		1
OTHER DISEASES			34	1	45	1	79	1

Result of Inspection.

Number examined ...	5,006	—	4,695	—	9,701	—
Fit	4,444	89	4,137	88	8,581	88
Defective (excluding verminous cases) ...	562	11	558	12	1,120	12
Percentage for 1926-27.						
Fit		86		85		86
Defective		14		15		14
Percentage for 1931-32.						
Fit		89		90		90
Defective		11		10		10

Special Schools and Classes.*Fairmuir Special School.***(1) Physically Defective Children—**

	Boys.	Girls.
On roll, July, 1935 ...	139	94
Admitted	22	22
Left	28	20
On roll, July, 1936 ...	133	96

Fairmuir Special School.

	Boys.	Girls.
(2) " Retarded " Children—		
On roll, July, 1935	53	40
Admitted	9	6
Left	7	8
On roll, July, 1936	55	38

The use of the "Sun Lamp" continues to be of great benefit to many children. 129 children have received treatment, the exposures varying in accordance with the nature of the disability under treatment.

The workshop continues to be of the greatest benefit to the boys in attendance at this school. The useful articles made have been admired by all who have inspected the work.

The thanks of the School Medical Staff are again due to Mr Forbes and his assistants for their co-operation in the orthopaedic work carried out in the school. Cases are graded according to their disability, and the appropriate treatment is then agreed upon by consultation between the Physical Training experts, and the School Medical Officer. The regular carrying out of this treatment is apparent in the more erect carriage, the improved balance, and the better breathing of the pupils.

Blind Institution School.

	Boys.	Girls.
Blind and Partially Blind Children.		
On roll, July, 1935	31	22
Admitted	1	2
Left	6	5
On roll, July, 1936	26	19

Dudhope Terrace School.

Deaf and Deaf Mute Children—		
On roll, July, 1935	35	29
Admitted	8	5
Left	10	4
On roll, July, 1936	33	30

Sidlaw School, Auchterhouse Sanatorium.

Children undergoing Sanatorium treatment.		
On roll, July, 1935	12	13
Admitted	22	31
Left	24	35
On roll, July, 1936	10	9

Arrangements for Physical Training.

The courteous co-operation of Mr. Forbes, Director of Physical Education, and his staff with the School Medical Service continues to be an outstanding feature of the Physical Training in our schools.

The careful consideration of the requirements of special cases referred to the physical training instructors results in a special table of remedial exercises being made for each child planned on scientific lines and aiming at the correction of defects which if left alone might hamper the boy or girl in the earning of their livelihood later on in life.

With the introduction of film teaching it is now possible to show groups of children films which illustrate good posture, controlled balance, and the action of muscles.

The working of the circulatory and respiratory systems can also be demonstrated, while many films which have as their object the teaching of hygiene can now be obtained.

During the past session a First Aid Class was conducted by Dr. Imrie.

This class was attended by school janitors and corporation employees.

Certificates of proficiency in "First Aid" were gained by all who presented themselves for examination and the interest shown by many of the members of the class points to the fact that next session there will be a considerable number presenting themselves for examination in order to gain the Medallion of the St. Andrew's Ambulance Association.

Arrangements for Medical Treatment.

Summary of attendance at Treatment Clinics

Total attendances at all clinics...	...	...	...	...	88,162
(1) <i>Central Clinic (Nelson Street).</i>					
Dental	...	...	...	...	3,510
Skin and X-ray	...	...	...	...	9,306
Ear, Nose and Throat	...	...	...	...	8,394
Eye	...	...	...	...	13,579
General	...	...	...	...	19,074
Total attendances					53,863

Total number of children who have attended the Central Clinic :—

(a) Off school	...	...	...	...	...	2,435
(b) Attending school	...	...	...	...	...	5,109
						<hr/> 7,544
Average attendance per child (days)	...	...	...	...	...	7
Average daily attendance	...	...	...	...	...	199
Cases sent by Headmasters, Doctors, Health Visitors, Attendance Officers	...	...	...	...	...	11,801
Return Cases	...	...	...	...	...	1,121

(2) *Broughty Ferry Clinic.*

Eyes	...	...	...	...	...	108
Ears ...	...	...	...	...	...	82
General	...	...	...	...	...	405
						<hr/> 595

Cases sent by Headmasters	...	...	...	...	...	361
Return Cases	...	...	...	...	...	488
Pre-school Children	...	...	...	...	...	67

(3) *Ferry Road Clinic.*

Eyes ...	...	...	...	...	...	940
Ears ...	...	...	...	...	...	756
General	...	...	...	...	...	3,446
						<hr/> 5,142

Cases sent by Headmasters	...	...	...	...	...	555
Return Cases	...	...	...	...	...	613
Pre-school Children	...	...	...	...	...	131

(4) *Lochee Clinic.*

Eyes	...	...	...	...	...	1,659
Ears	...	...	...	...	...	1,536
General	...	...	...	...	...	5,857
						<hr/> 9,052

Cases sent by Headmasters	...	...	...	...	...	1,781
Return Cases	...	...	...	...	...	1,705
Pre-school Children	...	...	...	...	...	178

(5) *Isles' Lane Clinic.*

Eyes	2,340
Ears	1,189
General	7,411
	<hr/>
	10,940

Cases sent by Headmaster;	1,817
Return Cases	2,510
Pre-school Children	259

(6) *"Sun" Clinics at Nelson Street
and Lochee Clinic.*

	Boys	Girls	Boys and Girls.
Age 2-5 attendances	668	958	1,626
Age 5 and over, attendances	3,491	3,453	6,944

Total Attendances at Clinics.

Nelson Street	53,863
Broughty Ferry	595
Ferry Road	5,142
Lochee	9,052
Isles' Lane	10,940
"Sun" Clinics	8,570
	<hr/>
Total	88,162

Total Number of Children who have attended Clinics.

Nelson Street	7,544
Broughty Ferry	361
Ferry Road	555
Lochee	1,781
Isles' Lane	1,817
"Pre-school"	1,349
	<hr/>
Total	13,407

"Pre-School" Attendances.

This section of the work is steadily increasing.

We are finding more and more that these younger children are being brought to the clinics for advice as to defect which have been noted by parents.

Very valuable information is now being obtained from the Health Visitors, as a result of their more intimate knowledge of households.

Retarded children are noticed earlier and are brought to the clinics for examination and advice as to home training before they commence attendance at a school.

Squints are now being attended to more frequently before the school life of the child begins.

Treatment Centres.

No change has been made in the organisation or working of these clinics

Children and Young Persons (Scotland) Act, 1932.

The organisation of the work entailed by this Act has been remodelled in consideration of all the bodies associated in the work. This re-organisation has made the work easier and careful records are now available for further reference.

35 cases were under consideration as to their fitness for transfer to an approved school.

569 boys and 142 girls were examined as to their fitness to undertake employment in accordance with the Bye-Laws regarding the Employment of Children.

Summary of Attendance Certificates Granted at Clinics.

Total number of certificates issued 17,705

(a) Unfit to attend school—

	Four Weeks.	Three Weeks.	Two Weeks.	One Week.
Clinic cases	2	3	125	2,305
Non-clinic cases ...	179	146	1,409	3,500
Total Clinic cases ...	...	...	2,435	
Total Non-Clinic Cases	...	...	5,234	
			<hr/>	7,669

(b) Fit to attend School.

Clinic cases ... ..	...	...	4,860	
Non-Clinic cases	...	...	5,176	
			<hr/>	10,036
		Total	....	<hr/>17,705

DENTAL OFFICER'S REPORT, 1935-1936.

Sir,

I beg to submit my twelfth Annual Report for the year ending June, 1936

The Dental Service Scheme as carried out in this area comprises

- (a) *Routine Examinations* at various schools of children of age groups 6-8 years, for the selection of those cases whose first permanent molars show early decay, a stage suitable for easy and permanent fillings.
- (b) *Casual Attendances* of school children of all ages submitted by the Medical Officers, Head Teachers and Attendance Officers, for advice and treatment pertaining to diseases of the mouth including the teeth.

These children attend the afternoon session of the clinic at Nelson Street, the morning session being reserved, if possible, for routine cases selected at schools.

Routine Inspection.

The following schools were visited :—

Victoria Road, Tay Street, St. Andrew's, St. Joseph's, Hawkhill and St. Mary's (Forebank) School,

1,710 children were examined, 480 being selected for the filling of the first permanent molars.

233 children were re-inspected, out of which number 65 required additional treatment as fillings,

Percentage of Consents to Treatment by Fillings.

Victoria Road, Tay Street and Hawkhill School, each 44%.
St. Andrew's, St. Joseph's and St. Mary's (F.), each 65%.

Numerical Table of Treatment Done.

Fillings	...	...	...	...	801
Dressing and Applications	...	...	...	...	1,095
Scalings and Brushings	...	...	...	...	24
Extractions—					
Temporary Teeth	...	...	...	...	1,593
Permanent Teeth	...	...	...	...	173
Anaesthetics—Local	...	...	...	...	1,181
—General	...	...	...	...	35
Advice was given in 202 cases					

Sight Saving School.

35 children received dental treatment or advice. They were mostly six monthly return cases. I feel I must record my appreciation of the regular attendance of these patients for re inspection.

Treatment done :

Fillings	...	...	...	...	...	25
Extractions—						
Temporary Teeth	...	...	...	...	...	16
Permanent Teeth	...	...	...	...	...	2
Local Anaesthesia	...	...	...	...	...	11
Dressings	...	...	...	...	...	10
Advice	...	...	...	...	...	12
Scalings	...	...	...	...	...	2

Orthodontic Treatment for irregularities of the Teeth.

Several cases were referred to the Dundee Dental Hospital for treatment by means of appliances.

Total Attendances at the Dental Clinic numbered 5510.

Number of Children attending Boys 1,344 Girls 1,377

Parents or Guardians accompanying them, 2123.

Nurse Sutherland still continues to discharge her duties commendably.

My thanks are due to Head Teachers for their assistance in facilitating the Routine Inspection.

Again I am indebted to you and the Assistant Medical Officers for co-operation in the work of the School Dental Service.

(Signed) ERNEST E. CASSADAY,
M.B., Ch.B., L.D.S., D.P.H.

OPHTHALMIC SPECIALIST'S REPORT.
1935-1936.

Sir,

I beg to submit the following detailed list of 1,410 cases seen by me at the School Clinic during the session 1935-36 :—

Refractions	...	...	...	...	885
Corneal Ulcers	...	...	...	...	300
Blepharitis	...	...	...	...	86
Interstitial Keratitis	...	...	...	...	45
Conjunctivitis	...	...	...	...	18
Follicular Conjunctivitis	...	...	...	...	4
Chalazion	...	...	...	...	24
Hordeolum	...	...	...	...	4
Tear Duct Obstruction	...	...	...	...	4
Wound of Eyeball	...	...	...	...	6
Lid Abscess	...	...	...	...	9
Nystagmus	...	...	...	...	1
Corneal Abrasion	...	...	...	...	4
Corneal Nebulae	...	...	...	...	1
Congenital Cataract	...	...	...	...	1
Foreign Body	...	...	...	...	1
Microphthalmos	...	...	...	...	1
Contusion...	...	...	...	...	8
Paralysis of Accommodation	...	...	...	...	2
Anophthalmos	...	...	...	...	3
Admissions to Sight Saving School	...	...	...	...	3
Total					1,410

I should like to take this opportunity of bringing to your notice the desirability of establishing an Orthoptic, or Squint Training Clinic in Dundee.

Orthoptic Centres are being established in cities and big towns all over the country with gratifying results.

The aim of Orthoptic training is not only to straighten a child's squint, but also to improve the sight of the squinting eye and develop full stereoscopic vision, without which a child may be seriously handicapped as regards a future occupation.

My best thanks are due to the full-time Medical Staff and the Clinic Nurse for the valuable assistance during the past session.

(Signed) ALLISTER M. MACGILLIVRAY,
M.D., D.O.M.S

EAR, NOSE, AND THROAT DEPARTMENT.

1935-1936.

New Cases seen	416
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Diseases of the Ear—

A.O.M.S.	9
C.O.M.S.	26
Furuncle	3
External Otitis	2
Mastoid	5
Inflation	4
Paracentesis	...	...	....	1
Wax ...	....	...	....	3
Foreign Body	...	...	...	2
Conservative Treatment	...	...	...	69

Diseases of Nose and Throat—

Nasal Cattarrh	...	...	....	14
Rhinitis ....	....	...	....	14
Other Nasal Conditions	...	...	...	10
Tonsillitis	....	...	...	2
Glandular Pharyngitis	...	...	...	9

Operative Treatment—

Tonsils and Adenoids	...	....	...	314
Mastoids ...	....	...	...	7
Septum ...	...	...	....	6
Polypus ....	...	...	...	1
Referred to Dentist	...	...	...	14
Referred to Sun-Ray	...	...	...	3
Old Patients examined	...	...	...	224
Negative examinations	....	...	...	56
Total number of cases examined	...	...	...	640
Average number of cases examined daily	...	...	...	15

(Signed) M. J. GIBSON,

M.B., F.R.C.S.E.

X-RAY SPECIALIST'S REPORT FOR 1935-36.

DURING the past year 96 children have made 498 attendances at this Department. The following table shows the diseases from which they suffered :—

Ringworm of the scalp :—

Microsporon (a)	17
Trichophyton (b)	4
Kerion	4
Ringworm of the body	2
Favus of the scalp	3
Favus of the body	1
Alopecia areata	10
Streptococcal dermatitis	18
Psoriasis	8
Other diseases of the skin	29
	—
	96
	=

(a) Includes 2 cases from Angus.

(b) Includes 1 case from Perth.

Several cases of ringworm from an institution for children in the town led to the examination of all the inmates by Wood's glass. By this means several undetected cases of ringworm were discovered and treated. No further case has occurred since then in this institution.

X-ray epilation has been carried out at my home pending the replacement of the present apparatus.

I have again to thank Dr Kidd, Nurse Miller and the rest of the staff for their co-operation.

(Signed) JOHN KINNEAR,

M.D., M.R.C.P., Ed.

Holiday Homes.

During the past session 1,106 children have received the benefit of a holiday in the country at one or other of the Homes which provide holidays for our City children.

During the seven weeks vacation these Homes are full and are not able to accommodate all the children whom one would wish to see benefit from a country holiday.

The School Medical Staff welcome the idea that a larger provision for such holidays will be available in the near future, for the many who cannot now be accommodated in the Homes.

We would wish to record the thanks of the whole School Medical Staff to those in charge of Auchterhouse Holiday Home (Dundee Invalid Aid Society), Comerton Home, Newport, Marfield Home, Rattray, Blairgowrie, (Dundee Social Union), St. Leonard's Home, St. Andrews, and The Armitstead Home, Barnhill, for their kindly care of those 1,106 children who desire us to express their very sincere thanks for the many kindnesses they received while staying in one or other of the Homes.

The Pearson Picnics to Tayport have again given much pleasure to a large number of children and those in charge of this organisation deserve every praise for all their efforts on behalf of the children.

The Rotary Club Picnic for Cripple and Invalid Children again gave a healthful and enjoyable outing to 80 children.

The members of the Toc H continue in their assistance of boys who have not been able to progress with their education to the same extent as their more talented companions.

Handwork, excursions, etc., under sympathetic leadership mean much to these boys who profit by the unselfish attention given by the Toc H members.

I wish to record my sincere thanks to every member of the Staff. Their wholehearted support during the past year, when they were again called upon to overtake extra work owing to sickness which had reduced the number of the staff on duty. The cheerful acceptance of this extra work makes for the smooth working of the department.

My thanks are also due to Mr Cameron, the Director of Education, to the members of the other departments of the Public Health Service, and to other Corporation Officials for their kindly and helpful co operation in the work of the School Medical Service.

My special thanks are due to Dr Burgess for his help and advice. The interest he takes in the work is shown in many ways but especially in the consideration and advice given as to the action to be taken in regard to difficult cases which require special treatment or accommodation.

VETERINARY INSPECTION.

Report by MR HUGH FERRIER. M.R.C.V.S.,
Veterinary Surgeon.

(1) Conditions and Cleanliness of Cattle.

The general conditions and cleanliness of the cattle were very satisfactory.

- (a) The quality of Hay, Straw and Turnips has been good throughout the year.
- (b) Number of diseased cows found totalled 28, all suffering from Tuberculosis.
- (c) Disposal of milk from diseased cows :—Either destroyed or thoroughly boiled before being given to any other animals.

(2) Inspection of Cattle.

	Average Number of Cows	Number of Cows Inspected	Annual Frequency of Inspection
(a) Registered Dairies, ...	506	3,080	Every Two
(b) Exempted Premises, ...	9	10	Months

(3) Bovine Tuberculosis.

- (a) Total number of cows found Tuberculous on clinical examination, and slaughtered under the T.B. Order of 1925, 11
- (b) Total number of cows found Tuberculous after tuberculin test, and slaughtered under the T.B. Order of 1925, 17
- (c) Total number of cows to which the tuberculin test was applied under Section 22 of the Milk and Dairies (Scotland) Act, 1914, was 59. 44 passed the test and 15 re-acted and were isolated.

- (d) Number of dairies holding graded milk licences in respect of tubercle-free herds :—

Name and Address.	Average Number of Herd.	Estimated Number of Gallons Produced per Annum.
CERTIFIED. Messrs. Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	20	16,790
*GRADE "A" (T.T.). Messrs. Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	20	16,790

- (e) Number of any other dairies known to have tubercle-free herds :—none within the City.

(4) Miscellaneous.

- (a) List of dairies holding licences for the production of Grade "A" milk :—

Name and Address	Average Number of Herd	Estimated Number of Gallons Produced per annum
Messrs Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry	20	16,790

- (b) There were no samples of milk taken for examination in terms of Section 21 of the Milk and Dairies (Scotland) Act, 1914.
- (c) The regulations under Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, are being duly complied with in this district, and there has been no occasion which demands special comment.

Meat Inspection at Slaughter-Houses and Meat Market.

During the year 53,828 carcasses were inspected.

The number of cases of tuberculosis detected during the year was 2,921, an increase of 357 cases as compared with 1934. Of the aforesaid number 985 were cows, an increase of 154 as compared with 1934.

The total amount of meat seized under this head during the year was 249,341 pounds, an increase of 21,271 pounds as compared with 1934.

The number of carcasses wholly or partially condemned for tuberculosis during each year for the last five years were as follows :—

YEAR	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Pigs	Total
1931	190	1,239	16	618	...	...	88	2,151
1932	263	1,223	22	746	1	...	92	2,347
1933	236	1,399	17	895	2	...	93	2,642
1934	309	1,281	17	831	1	...	125	2,564
1935	287	1,520	21	985	1	...	107	2,921

Other Diseases.

The detections under this Head during the year amounted to 2,040, an increase of 502 as compared with 1934. The total amount of meat seized being 38,018 pounds, an increase of 4,569 pounds as compared with 1934.

Animals Slaughtered at Public Slaughter-Houses.

The number of detections of disease during the process of slaughter for the year was 6,407, a decrease of 522 as compared with 1934.

Carcasses Dressed and Undressed Brought into the Slaughter-Houses.

The number of detections of disease in consigned carcasses during the year was 179, an increase of 6 cases as compared with 1934.

Cattle, Sheep and Pig Organs.

During the year, 17,083 cattle, sheep and pig organs were seized and condemned as compared with 17,094 during 1934, a decrease of 11 organs for the year.

The following is a synopsis of the organs seized and condemned during the year :—

CATTLE ORGANS		SHEEP ORGANS		PIGS' ORGANS	
Cows' Udders ...	1,473	Livers ...	23	Udders ...	29
Livers ...	2,182	Plucks ...	604	Plucks ...	173
Lungs ...	2,956	Kidneys ...	667	Kidneys ...	144
Hearts ...	1,044	Lungs ...	977	Livers ...	101
Kidneys ...	2,384			Lungs ...	42
Heads ..	967	Total ...	2,271		
Tongues ...	996			Total ...	489
Skirts ...	2,321				
Total ...	14,323				

Tinned and Frozen Meat.

During the year, 36 pounds of Tinned Meat, 61 pounds of Frozen Ox Livers, and 188 pounds of Frozen Meat were seized for decomposition. In addition to the foregoing 4,478 pounds of Frozen Meat were seized on account of taint.

Statement showing Number of Animals Slaughtered, Wholly Condemned, Partially Condemned, and Weight (in lbs.) of Meat Condemned during the year 1935.

Class of Animal	Slaughtered	NUMBER OF ANIMALS		Weight (in lbs.) of Condemned Meat
		Wholly Condemned	Partially Condemned	
Cattle,	15,071	280	4,114	263,791
Sheep,	27,630	36	1,595	3,167
Pigs,	5,071	25	382	6,214

Cattle Market.

The Cattle Market was visited by me every market day (Tuesday), and all the cattle, sheep and pigs exposed for sale were inspected for the purpose of preventing animals showing symptoms of disease, and which are ultimately intended for human food, being sold. The Superintendent of the Market and I seize all suspicious animals exposed for sale in the fat stock market, under powers conferred by Section 43 of the Public Health (Scotland) Act, 1897, which renders the owners of animals so seized liable to prosecution. The owners of such animals are given the option of sending them to the slaughter-house to be killed. There the carcasses undergo a minute inspection, and are dealt with on their merits. In the event of the owner of such failing to comply with our request, the animal can be seized and the owner prosecuted under the Act above mentioned.

During the year 3 bullocks were seized in the Cattle Market with the owners' consent as suspicious animals and sent to the Slaughter-House to be slaughtered.

Anthrax.

There has been no outbreak of this disease in the City during the year.

Swine Fever.

There has been no outbreak of this disease in the City during the year.

Parasitic Mange.

There has been no outbreak of this disease in the City during the year.

Foot and Mouth Disease.

There has been no outbreak of this disease in the City during the year.

Importation of Animals Act, 1922.

Under this Order, 1,053 Irish and Canadian cattle were admitted into the City accompanied by licence, necessitating 102 visits of inspection, a decrease of 493 imported cattle as compared with 1934.

Transit of Animals Order, 1927, and Amendment Order of 1931.

Under this Order all railway trucks and road vehicles whether mechanically propelled or horse-drawn, used for the conveyance of live stock to a market must be washed, scrubbed, thoroughly cleansed, and thereafter disinfected before leaving the market and before any other animal, or any fodder or litter, or any other thing intended to be used for or about animals is placed in it, provided the Local Authority have such washing facilities or have caused such facilities to be erected.

A record of all animals carried and the dates and places at which the vehicle was cleansed and disinfected must be kept available on the vehicle to which it relates by the owner.

During the year one motor lorry driver was prosecuted for contravening the above Order and was fined 30/-, with the option of 20 days' imprisonment.

During the year 2,297 motor floats, 146 horse floats, 31 trailers and 128 crates, bringing in cattle, sheep and pigs to the Market, were washed, scrubbed and disinfected at the Cattle Market.

From periodical visits made by me to the various railway stations it was observed that the railway authorities are adhering to this Order.

Veterinary Attendance on Horses Belonging to the Corporation.

The attendance during illness of horses belonging to the various departments necessitated 29 visits during the year.

The whole stud is in a satisfactory state of health and are in good working condition.

Other Work.

One visit at the request of the Police to horse yoked to lorry in Princes Street suffering from sore shoulders and issuing certificate of same to the Police.

One visit examining 2 bullocks found dead in field. There was no infectious or contagious disease. They died from yew tree poisoning.

Two visits to Old Meldrum examining 5 horses for soundness, and recommending that 2 of them be purchased as suitable for the Works Department. One was returned later, not conforming to warranty.

One visit making post-mortem examination of cow which was found free from any infectious or contagious disease.

Two visits to horse at Caird Park.

One visit to dead pig.

HUGH FERRIER, M.R.C.V.S.,

Veterinary Surgeon.

SANITARY DEPARTMENT.

Report by Mr ALEX. A. RUSSELL, Chief Sanitary Inspector.

SANITARY DEPARTMENT,
WEST BELL STREET,
DUNDEE, 1st JUNE, 1936.

To the Honourable—

The Department of Health for Scotland; and
the Lord Provost, Magistrates, and Councillors—
the Local Authority of the City of Dundee.

GENTLEMEN,

I have the honour to submit my Annual Report showing the work of the Sanitary Department during the year 1935. The Report has been prepared in accordance with the circular of the Department of Health for Scotland dated 19th December, 1935, namely :—

A.—GENERAL SANITATION.

- 1.—Water Supplies—quality and sufficiency.
- 2.—Drainage System—efficiency.
- 3.—Sewage Purification and Disposal—methods and efficiency.
- 4.—Scavenging—methods and efficiency—disposal of refuse.
- 5.—Sanitary Conveniences—State the number of (i) (a) dry closets; (b) privy-middens; and (c) ashpits in use, with particulars as to the number in each case serving 2, 3, 4, or 5 or more tenants respectively; (ii) water-closets used in common by 2, 3, 4, or 5 or more tenants respectively; and (iii) houses without indoor water-supply and sink.

Indicate the extent to which action taken or decided upon by the local authority under their statutory powers will reduce the number of houses defective as regards sanitary conveniences and indoor water-supply and what action has been or is being taken by them with a view to remedying these defects, where reasonably practicable, in properties not likely to be the subject of action for demolition or closure.

A general indication should also be given as to the extent to which the provision by owners of a separate water-closet for each dwelling house (either inside or outside the house) is prevented by—

- (a) the absence of an adequate water-supply;
- (b) practical, structural or environmental difficulties;
- (c) the owner's financial circumstances;
- (d) impending demolition or closure; or
- (e) the inexpediency of improving houses which, owing to age, obsolescence or congestion, should not be retained.

Suggestions should be made as to any further action which may be deemed desirable to secure the more rapid provision of a separate water-closet for each house.

6.—Rivers Pollution—presence or absence, nature and sources.

7.—Offensive Trades—action taken.

8.—(a) Schools; (b) Workshops; (c) Factories; (d) Common Lodging-Houses; and (e) Burial Grounds—sanitary condition.

9. Miscellaneous—any other sanitary matters calling for comment.

N.B.—In county areas information regarding 1 to 4 above should be given in respect of each special district and each populous centre.

B.—HOUSING.

1.—Housing (Scotland) Acts, 1925 to 1935, and Housing (Rural Workers) Acts, 1926 and 1931—Proceedings. Include reference to:—

- (a) Sufficiency of working-class houses;
- (b) Habitability of existing houses—action taken to deal with defective or uninhabitable houses;
- (c) Clearance or re-development areas under the Housing (Scotland) Acts, 1930 and 1935—proposals under consideration or contemplated; and
- (d) Overcrowding—action taken.

N.B.—If the Sanitary Inspector is the designated officer under Article 2 of the Housing (Inspection of District) Regulations (Scotland), 1928, he should include in this report the information required in the form of report issued with the Department's circular dated 19th December, 1935.

C.—FOOD SUPPLY.

1. Milk—Administration of Acts, Orders, and Regulations.

Include a reference (where the duties of inspection have been placed on the Sanitary Inspector) to the sanitary inspection of registered dairies and exempted premises—the conditions found, complaints received and dealt with, any improvements effected, and generally to all matters of outstanding interest. State how far—

- (a) dairies conform with the structural and sanitary requirements of the dairy bye-laws;
- (b) dairymen and their employees comply with the requirements of the bye-laws relating to methods of milking, handling, and generally to the production of clean milk; and
- (c) Articles 4 to 14 of the Milk and Dairies (Scotland) Order, 1934, are being complied with.

Show—

- (a) the number of registered dairies in the area, and the approximate total number of cows therein; and
- (b) the number of premises exempted from registration and the approximate number of cows in such premises.

2. Meat—Administration of Sections 33 and 43 of the Public Health (Scotland) Act, 1897, the Public Health (Meat) Regulations (Scotland), 1932, and the Public Health (Preservatives, etc., in Food) Regulations. State the names and addresses of new slaughter-houses opened and old slaughter-houses closed during the year. Furnish a statement showing the number of cattle, sheep and pigs slaughtered, wholly condemned, and partially condemned, and the weight (in lbs.) of condemned meat and offals.

3. Miscellaneous—Administration of other Acts, Orders and Regulations governing the supervision of the food supply, e.g. the Food and Drugs (Adulteration) Act, 1928, the Imported Food Regulations, and the Public Health (Preservatives, etc., in Food) Regulations. Include reference to the sanitary condition of premises where foods are manufactured, prepared, stored, or exposed for sale for human consumption.

Staff.

The number and composition of the staff are as follows :—

- 1 Chief Sanitary Inspector.
- 1 Assistant Chief Sanitary Inspector.
- 1 Plumbing Inspector.
- 1 Indoor Inspector.
- 9 District Inspectors.
- 7 District Officers.
- 2 Junior District Officers.
- 1 Clerk.
- 1 Indoor Officer.

Total 24

Death-Rate: Density of Population, and Acreage.

The death-rate per 1,000, as corrected, for 1935 was 13.2, as against 13.6 in 1934, and 14.5 in 1933.

The population, as estimated to the middle of 1935 by the Registrar-General, is 178,157.

The acreage of the City, excluding foreshore, is 7,316. This works out at 24.35 persons to an acre.

Rainfall.

The total rainfall in Dundee, as noted at the Eastern Necropolis and reported by the Superintendent of Cemeteries, was 28.96 inches as against 29.75 inches last year. The figures for each month are as follows :—

January	...	...	...	...	0.93 inches.
February	...	...	...	...	1.58 inches.
March	...	...	...	...	1.75 inches.
April	...	...	...	...	3.02 inches.
May	...	...	...	...	0.69 inches.
June	...	...	...	...	3.46 inches.
July	...	...	...	...	1.46 inches.
August	...	...	...	...	2.41 inches.
September	...	...	...	...	3.59 inches.
October	...	...	...	...	3.91 inches.
November	...	...	...	...	3.99 inches.
December	...	...	...	...	2.17 inches.

Total ... 28.96 inches.

This shows an average fall of 2.41 inches per month, as against 2.48 inches of the former year, and 1.90 in 1933.

Public Sewerage of the City.

The work of constructing and maintaining sewers in the city is carried out by the Works Department under the City Engineer. During the year approximately .99 of a mile of new sewers were laid, making the total length of sewers in the City 154.15 miles. In maintenance and repair the sum of £4,355 was spent.

Throughout the year, the City Engineer's Department has taken the opportunity to replace existing untrapped gullies with those of modern design. There are still many old-fashioned ones, but these are being gradually reduced in number when carrying out street improvements, and in this connection there is active co-operation between the Works and Sanitary Departments.

Since the construction of Downfield Outfall Sewer there only remains a small portion of the city area which is not efficiently drained, i.e., the northern half of Magdalene's Kirkton Estate and ground near the village of Trottick. It seems likely, however, that this area will shortly be developed for housing, necessitating the laying of new sewers and probably the erection of a pumping station near Trottick. When these are in operation, it will be possible to drain the greater part if not all of this old village.

Rivers Pollution.

In the Annual Report for last year, reference was made to offensive odours arising from sewage discharged into the river in the vicinity of King George V. Wharf. This year, a further complaint was made that the smells were causing sickness amongst crews of vessels berthing there. To enable us to ascribe an author to this nuisance, samples of the discharge at the outfall of the sewer and of liquid within a sewer chamber in Camperdown Street were taken and submitted to the Public Analyst.

The reports of the Analyst are as follows :—

“ Result of a chemical examination of sample of sewage taken from chamber situated on the Camperdown Street sewer :—

Parts per 100,000 Parts Sewage.

Tar Oils (Petroleum Ether Extract)	79.20
Tarry Matter	22.00
Phenols	0.70

The above results point to a discharge of gas works effluent of the nature of residual ammoniacal liquor. The petroleum ether extract consisted mainly of Tar Oils containing a light oil having the characteristic odour of benzol. Sulphides, Polysulphides, Phenols, Sulphocyanides, together with small proportions of Tarry Matter, were also present—all compounds from the destructive distillation of coal and contributing to the complex obnoxious odour complained of. In a confined space the air may be so vitiated as to become dangerous to health.

Result of examination of effluent taken from Sewer Outfall at King George Wharf :—

The Results are expressed in Parts per 100,000.

Free Ammonia	2.63
Albuminoid Ammonia	1.24
Chlorine	20.60
Phenols	1.00
Nitrates	0.62
Nitrites	none
Oxygen in solution when received	0.034
Oxygen taken up in 5 days at 65 deg. F.	30.40
Oxygen absorbed from N/8 Permanganate 4 hours test	17.60

The effluent has a chocolate colour and, besides the constituents mentioned, contains sulphides, sulphocyanides and polysulphides which are decomposition products in the distillation of coal. These substances are contained in the aqueous product known as gas liquor and have a high oxygen absorbed value as indicated above.

The sample possesses a very strong odour characteristic of a gas works effluent or liquor. The odour is not really that of coal gas, but is derived from the dissolved impurities or constituents in the liquor."

Following the receipt of these reports, the subject was raised with the officials concerned, and a meeting at the locus arranged when it was agreed that the Gas Engineer and Manager would thoroughly inspect and test the By-Product Installation at the Gas Works. Apparently a defect was discovered and later remedied, as since that time no further complaints have arisen.

Towards the end of the year a complaint was received of obnoxious odours in the vicinity of the sewer discharging at the west end of the Eastern Wharf—a matter not unknown to us, and which for some time had been receiving the attention of this Department. The subject was raised at a meeting of the Works Committee of the Town Council, and it was agreed that the Harbour Authorities be approached regarding an extension of the sewer so as to prevent further nuisance therefrom. There the matter rests.

Water Supply.

The Corporation are responsible for the Supply of Water to the City. The Department particularly concerned therewith is under the charge of Mr George Baxter, O.B.E., M.Inst.C.E., who reports as follows :—

“ The principal source of supply is Lintrathen Loch, from which in a normal year over 80 per cent. of the requirements of the City and District are supplied. The other sources of supply are Monikie and Crombie Reservoirs, the former source being utilised to supplement the supply from Lintrathen, while normally Crombie provides the supply to the Burgh of Carnoustie and surrounding district.

The average quantities of water drawn daily from the various Reservoirs during the past year were as follows :—

	Gallons
Lintrathen 	9,140,700
Monikie 	870,600
Crombie (for the supply of Carnoustie) ...	275,750
	<hr/>
Total ...	10,287,050
	<hr/> <hr/>

The above total represents a daily consumpt of 50.43 gallons per head of the population supplied, i.e., 204,000. Of this consumpt per head 14.039 gallons represents water used for trade and industrial purposes through meter, whilst the remaining 36.39 gallons represents the average daily consumpt for domestic purposes, unmetered trade consumption, general public health purposes, including street and sewer flushing and leakage. The average daily consumption per head for domestic purposes

only is approximately 33 gallons. Recent metered observations of the consumpt for domestic purposes in different parts of the city show wide variation, the rate varying from over 100 gallons per head per day in some cases to as low as 10 gallons per head per day in congested localities where facilities for the use of water are restricted to a single $\frac{1}{2}$ -inch tap."

The following is a typical chemical analysis of the water supplied from Lintrathen Loch:—

ONE MILLION PARTS OF THIS WATER YIELD:—

Free Ammonia	...	...	...	...	.002
Albuminoid Ammonia	...	...	...	...	.088
Carbonate of Lime, etc.	...	...	...	...	30.00
Chlorine	...	...	...	...	9.00
Nitrogen, as Nitrates	...	...	...	...	None
Nitrites	...	...	...	...	None
Hardness, in Clark's Degrees	...	...	...	2 Degrees	
Lead or other Poisonous Metals	...	...	...	...	None

Domestic Water Supplies—Sinks, Etc.

At 7 properties the domestic water supplies were improved; the $\frac{1}{2}$ inch pipes, which were at one time allowed, having to be dispensed with and larger main service pipes introduced. On complaints being reported to us, notification is made to the Water Engineer, whose staff report on the suitability or otherwise of the existing service. In cases where there is an undoubted deficiency the matter is reported to the Public Health Committee, who authorise the statutory notices to be issued.

78 sinks were installed during the year at 34 properties. 36 were placed within attic flat houses; 26 in houses other than attics; 4 in shops; 6 in workplaces; 3 in a common lodging house; 2 in a public institution; and 1 in a hall. Attic flat houses, on the whole, are now fairly well up to modern requirements in regard to water supplies and sinks.

Although there are still a number of properties which require to be considered in this respect, many are scheduled to be dealt with as opportunity occurs by way of closing orders, etc.

Ward.	No. of Houses	ROOMS				WATER SUPPLY.	
		1	2	3	4 & over	On Stairs, Landings,&c.	In Courts, Areas,&c.
1.	98	87	11	—	—	98	—
2.	108	70	31	5	2	95	13
3.	118	100	14	3	1	93	25
4.	84	65	15	3	1	81	3
5.	34	25	6	2	1	21	13
6.	219	190	25	4	—	200	19
7.	24	3	14	4	3	3	21
8.	69	55	14	—	—	66	3
9.	81	62	19	—	—	78	3
10.	14	2	4	8	—	2	12
11.	7	2	—	5	—	—	7
12.	50	36	10	3	1	44	6
Totals	906	697	163	37	9	781	125

Scavenging and General Nuisances.

The work of scavenging lies wholly within the sphere of the Department coming under the immediate control of the Cleansing Superintendent.

No complaints arose thereanent, the work having been conducted in a particularly gratifying manner, while the removal of refuse—becoming more mechanical each year—gave little cause for reproach.

The disposal of refuse, however, brought forth a strong outcry during the summer months in respect of the area situated at the west end of Riverside Drive where dumping operations are being carried out. It was alleged that noxious odours were permeating the atmosphere to the annoyance of residents some distance away. Samples of mud from that part of the river presently being filled in and of the "screenings" deposited at the west section of the bay, were obtained, and analysis showed that both were contributory causes to the smell complained of. The locus was visited by the Officials concerned and remedial measures to reduce to a minimum the cause for complaint were agreed upon. Towards the end of the year a further proposal to erect a small incinerator at this site to deal with combustible material found favour with the Local Authority. Since these improvements were effected no further complaints have been received.

A step in the right direction was made during the year in connection with the cleaning of gullies, when it was agreed to purchase a mechanical gully cleaner. Undoubtedly this is a much better method than the one formerly employed; then, it was a case of the contents of the gully being deposited on the side of the road to await the collecting cart; now, the gully contents are drawn direct from the gully to the collecting vehicle.

General Nuisances.—For the detection of nuisances 59,115 visits of inspection were made by inspectors during the year, in the course of which 8,820 nuisances falling to be dealt with in terms of the Public Health and Local Acts were discovered, and action taken for their abatement. The Departments of the Chief Constable and Cleansing Superintendent also assist in this direction by bringing to our notice defects discovered by their staffs in the course of their travels, an assistance which we gladly acknowledge and appreciate.

Of nuisances dealt with throughout the year mention might be made of the following as being out of the ordinary.

A complaint of the smell in ground floor houses at the north-east end of the town was first notified by the Gas Department, who had been called in to test the gas pipes which were found to be sound. The Gas Inspectors formed the opinion that it was a smell of petrol, and an Inspector from this Department agreed with their view. After exhaustive investigations an underground petrol storage tank was suspected. The tank was tested during a period by means of a measuring stick, and the output was also checked in comparison with the input; no wastage was indicated. Later, a similar smell was discovered in the public sewer and the drainage system of the property was tested and found to be sound. The next step adopted was to dig a trench across the bleaching green, and here a distinct smell of petrol was detected, which led us back to the aforementioned tank. On breaking the tank concrete covering a leak was discovered, the leakage filling a $\frac{1}{2}$ -pint glass per hour, amounting to $1\frac{1}{2}$ gallons per day. It was computed that 225 gallons of petrol had been lost owing to a loose nut which connected the tank to the filling pump. Since the defect was remedied, and the saturated soil thoroughly aerated, the smell has entirely disappeared.

Sweeping and Washing of a Common Stair.—A deadlock between two tenants as to whose turn it was to sweep and wash the

common stair led to them being prosecuted for a contravention of Section 115 of the Burgh Police (Scotland) Act, 1892; both pleaded "Not Guilty." After lengthy and sometimes irrelevant evidence they were found "Guilty," but sentence was deferred for a week to give them an opportunity to clean the stair. To solve their difficulty the tossing of a penny was suggested and agreed to; the stair was washed, and the deferred sentence "Admonished."

Sewage in Open Ditch in St. Mary's Road, Downfield.—New houses were erected in the locality and the occupiers complained about an objectionable smell from an open ditch. A sample of the liquid was procured, analysed, and found to contain sewage. On investigation it was discovered that part of the drainage of a nearby farmhouse, situated in the County District, discharged into the ditch. The County Authorities were immediately communicated with. Meantime, our recommendation that that part of the ditch within the municipal area should be properly piped and covered in is presently receiving the attention of the Town Council. We hope to see this work in hand in the early part of 1936.

At a recently erected Corporation property serious flooding under the floor of two houses took place. A complaint by a tenant on the first floor of offensive smell, particularly in the presses of two front rooms, was enquired into. The main drain was found choked, and although cleared, the smell abated little. The floor of the house on ground flat was thereafter opened and the whole underfloor area was found to be saturated with sewage. Obviously this filthy matter could not be removed through the dwelling, and part of the front wall was taken down. It was then disclosed that there was no proper underfloor ventilation, the sleeper walls being built solid with no ventilating apertures left; also the brickwork over the sink traps in rear was discovered to be in an open condition, allowing the sewage to percolate below the floor. The repairs and improvements required were effectively carried out and a recurrence of the nuisance is unlikely.

The "love" of animals brought the wrath of neighbours upon the head of a tenant of a house in the west end, and resulting enquiries showed a mixed family of 15 cats and 1 pigeon as lodgers. Needless to say this family was the subject of notice to quit to which the time limit was very restricted.

Verminous Houses and Persons.

Verminous Houses.—The advice and assistance given by this

Department in cases of bug infestation plays an important part in the attempt to make life tolerable in homes so afflicted. During 1935, 260 rooms in 210 dwellings were treated for these pests.

The complete extermination of such vermin, especially in older properties, is a very difficult problem. When defestation measures are being taken, the inspectors usually arrange with the owner or agent of the property to have a tradesman in attendance. Door facings, skirtings, etc., are removed and walls stripped of paper for spraying operations, after which, plaster-work requiring repair receives attention. Tenants are counselled when re-decorating their homes to use distemper in preference to paper, and advised that papered walls provide a good breeding ground for bugs. Nor are bugs wholly confined to older properties. New Corporation houses unfortunately have fallen victims to this nuisance; a very serious matter, and takes us back to the oft debated question of providing furniture, or at least, seeing that all furnishings are thoroughly examined, and where necessary, subjected to defestation before removal. Even if these precautions were taken we are still confronted with the probable purchase of second-hand furniture which might be "buggy."

At one house belonging to the town, sprayed in 1934 and again requiring similar treatment, our work was greatly hampered and the full benefits not derived owing to composite material being employed for ceilings and walls in place of plaster. The introduction of these patent surfaces may have the advantage of speed over the older method of lathing and plastering, but they have their drawbacks where bugs are concerned, which get behind ceilings and walls and thorough extirpation is frustrated. Migration from house to house is soon accomplished, and before long the entire property is affected.

Included in the figures given are 50 rooms in 37 Corporation houses.

Among the miscellaneous complaints received during the year which might be mentioned under the same heading as this section of the Report were:—

Beetles.—Two houses adjacent to a public wash-house were overrun with these pests. Spraying, done twice, and the use of insecticide power, were without avail. We could do nothing further while the tenants were in possession. The circumstances were

reported to the Housing and Factorial Committee in terms of Section 16 of the Housing (Scotland) Act, 1930, and later an undertaking was given by the owner not to re-let the houses after the existing tenants were displaced. The property in question had seen better days.

Another house had an invasion of insects, which, on examination by an expert, were classified as "*Cryptophagus Acut-Angulos* " and "*Enicmus Minutus* "—fungus feeders, and of no economic importance. Spraying and fumigation proved futile, even the keen frost experienced during the winter failed to kill them off. Their breeding quarters are in untilled ground adjacent to the house, and it is hoped with the coming of spring when garden ground is being turned over that these pests will disappear for good.

We also sprayed a house for a plague of flies, which, despite all efforts of the tenant, persisted until our inspectors were called in.

Verminous Persons.—A few cases of this nature were brought to our notice throughout the year. It is the old story of aged people who are done physically and unable to do their turn. In most cases they were mentally affected, but still retained the fixed aversion of humanity in general against giving up their homes and entering institutions. In some cases the inspectors prevailed upon them to clean their houses and themselves or get assistance in doing so; others yielded to entreaty and entered institutions where they will be kept clean and warm and have regular meals. This is really the best termination to these cases, and they usually find once they are established in their new quarters, that their fears had no foundation.

Whitewashing and Painting Common Stairs and Passages.

The Sanitary Inspector, as Inspector of Cleansing, is the Official responsible for intimating to house-owners and agents the necessity for work of the above nature being done when needed.

Under Clause 354 of "The General Police and Improvement (Scotland) Act, 1862," which is included in "The Dundee Police and Improvement Consolidation Act, 1882," it is laid down *inter alia*, "The Owners of all Common Stairs and Common Passages . . .; shall whitewash or paint the same as often as required to do so by the Surveyor or Inspector of Cleansing . . ."

Unfortunately this clause does not include within its scope the whitewashing or painting of water closets situated on stairs. There is at present under consideration a new Provisional Order, and a clause has been inserted, which, when the Order comes into force, will remedy this former omission.

At the beginning of June, 242 letter intimations were served on owners or agents of tenemental property in regard to 879 common stairs and passages at which cleansing or painting work was required, and to those there was a good response on the part of the owners and factors. In 49 cases, however, statutory notices under the Clause already mentioned had to be resorted to, and in one instance, the work not having been done within the period prescribed in the notice, the circumstances were reported to the Procurator Fiscal, court proceedings resulted and the defaulter was fined 10s.

The work at certain properties was allowed to stand over until such time as structural alterations were completed.

The loan of whitewash brushes continues to be taken great advantage of among a certain section of the population. When money to purchase such articles for themselves is scarce, the loan of a brush may ensure cleaning being done which would otherwise be left, and gives them the comfort of a newly distempered house. In necessitous cases ochre and whiting are supplied free upon receipt of a recommendation by the district inspector.

During the year under review, 3,744 brushes were loaned for the cleansing of approximately 8,113 rooms.

Stables and Piggeries.

Stables.— These premises have been kept in a reasonably satisfactory condition, and when demanded, limewashing was carried out. 455 visits were paid to them. Their number is gradually being reduced—at the end of the year there were 282 stables within the city—a reduction of 15 from the figure for 1934.

Piggeries.—Within piggeries there were housed at the last census 638 pigs. The majority of these premises, to which the inspectors made 231 visits, are situated on the outskirts of the city and seldom gave cause for interference. In one instance, however, a piggery, not wholly in conformity with the Bye-Laws, and

in connection with which a complaint had arisen, salutary action had to be taken. Notwithstanding repeated warnings, the owner did not implement his promise to remove the pigs and discontinue the practice of keeping these animals in the buildings complained of. The subject was placed in the hands of the Procurator Fiscal and a fine of £3 inflicted at the ensuing court proceedings.

Back Courts, Areas, Footways, Etc.

The provision of an impervious material as a surface to back courts and areas, more particularly in connection with properties in the centre of the city is indispensable if these places are not virtually to become stores for filth and breeding grounds of disease.

Section 21 of the Burgh Police (Scotland) Act, 1903, adopted by the Town Council, provides the authority to obtain improvements, and in that respect 10,724 square feet of paving flags, concrete, or other impervious material were laid down with a suitable fall to branch drains for the catchment of surface and storm water. To ensure that the cleanliness of these paved areas is maintained it is necessary for regular flushings to be carried out. This is done by the staff of the Cleansing Department who also are responsible for the sweeping of those areas which are not in any way enclosed. We feel, in regard to sweeping there is room for some little improvement. Since the city transferred over to the system of ashbins as a means for the storage of refuse, it would appear the period between those brushings is becoming more and more extended. In any case, we notice an increase in the number of complaints made to the inspectors in regard to the matter.

Schools.

These premises are outwith our control so far as general repairs and upkeep are concerned—they are under the supervision of the City Engineer and their maintenance has been such as to warrant no interference by this Department.

An outbreak of diphtheria in one school necessitated an inspection of the drainage system. The drain traps were found to be of the grease box type, a number of which were not functioning as intended. The defective traps were removed and replaced by modern ones.

At another school the playground was periodically overrun by surface water from adjoining ground on a higher level. In this

instance field drain pipes were recommended, and when laid, a cure to the annoyance was effected.

Gradually the older schools are disappearing, another fell under the hammer of the demolisher during the year—St. Mary's R.C. (Girls) Lochec, and on the site a new school is to be erected.

Complaints.

A reduction in the number of complaints received falls to be recorded, 4,418 were made at the office in comparison with 4,791 for the previous year—a difference of 373. This is to be expected, as the number of houses dealt with each year in terms of the Housing Acts by way of Closing or Demolition Orders or by inclusion in Clearance Areas is gradually reducing the number of dwellings wherein those defects exist to which complaint is made. Of the complaints received 414 were on enquiry found to be of a particularly trivial nature or the result of neighbours' quarrels warranting no further departmental action.

Statutory Intimations or Notices.

Under the Public Health (Scotland) Act, 1897; Local Acts; the Burgh Police (Scotland) Acts, and other Acts which fall to be given effect to by the Department, 10,884 notices or intimations, written or verbal, were served upon the proprietors or agents of property or authors of nuisances. These have received, or are now in process of receiving attention.

3 Statutory Notices were authorised by the Public Health Committee as the Local Authority for service in terms of Section 20 of the Public Health (Scotland) Act, 1897, during the year.

Plans Submitted to the Works Committee.

The examination of plans prior to their presentation to the Works Committee, is carried out principally with the view of recording disapproval to proposed buildings and additions not in agreement with Bye-Laws and Regulations, and where existing property is to be affected detrimentally in regard to the admission of air and daylight.

Drainage and Structural Work.

Additions and improvements have been carried out at properties during the year and in connection therewith the following materials have been used :—

285	Water Closets.
78	Sinks.
23	Baths.
61	Wash-hand Basins.
66	Washtubs.
116	Lead Traps.
1	Septic Tank.
1	Sewage Lift.
2	New Washing Houses.
7	Properties had water supplies improved.
3	Dormer Windows.
6	Rooflights.
6	Roof Ventilators.
4,181	Feet Soil Pipe.
1,378	Feet Flush Pipe.
2,606	Feet Waste Pipe.
8,781	Feet Water Pipe.
5,485	Feet Vent Pipe.
298	Feet Cast Iron Drain.
15	Cast Iron Traps.
484	Yards Fireclay Drain Pipe.
49	Drain Traps.
27	Drain Inspection Chambers.
252	Water Closet Apartments.
1	Gas Boiler.

During the course of the work 1,725 inspections were made by the Plumber Inspector.

Septic Tank and Sewage Lift.—At one house where a water closet and washtubs were installed, no public sewer was available wherein to discharge the drainage. It was therefore necessary for a Septic Tank to be constructed .

At another building, where the sanitary fittings in the basement were on a lower level than that of the main drain leading to the sewer, an automatic sewage lift or ejector was provided to lift the sewage to the higher level.

Water Closets.

285 water closets together with all the necessary soil, flush, vent, and water piping were installed into 105 properties. 165 of these were provided in houses, the occupiers of which had previously used outside conveniences. 61 were installed in outside positions such as courts, passages, stairs, attic flats, etc. 27 were renewals within houses and at outside positions. 9 were installed in shops, 11 were installed in banks, 3 in a Public Institution, 8 in workplaces and 1 in an office.

The aim of the Department is to have a water closet installed within every house, and where this is possible we are working to that end. In certain old properties, however, such a demand would be asking the impossible owing to the lack of available space within the houses concerned. Only by reconstruction will we be able to install such fittings and other necessary additions within the houses forming these buildings, and this in many instances will necessitate the removal of existing tenants.

Opposition of tenants to the installation of water closets has provided an unlooked for check to the introduction of these fittings within houses. This has been brought about by their refusal to give written consent in terms of Section 7 (2) (a) of the Rent and Mortgage Interest Restriction Act, 1933, to the improvement or alteration, and to the payment of the permissible rent increase based on expenditure incurred. One tenant refusing can hold up the work of improvement in a whole tenement, and this, unfortunately, has occurred in a number of instances.

Baths and Lavatory Basins.

23 baths, and 61 lavatory basins, and hot water installations were installed during the year.

The position of some 516 dwellings in certain housing schemes in the City which are without wash-hand basins was reviewed by the Corporation, and it was ultimately agreed that these fittings be provided in the houses concerned.

Washing-Houses.

The common washing-house is the source of many neighbours' quarrels and often leads to spiteful complaints, the solution of which calls for great tact and diplomacy if ill feeling is to be dispersed and good will and harmony restored.

Although it is still necessary to provide such conveniences in numbers of the older properties, the trend of modern housing is to provide these facilities within each house; this is all to the good and certainly more hygienic.

Another development we have noted within recent years is the increased use which is being made of the cheap and quick washing provided by local laundries. There is no doubt these services are much appreciated and are a great boon to the harassed housewife.

Two washing-houses, equipped with enamelled fireclay tubs, boilers, etc., were erected during the year, thus providing facilities for the cleansing of bed and body clothing at properties where such conveniences were formerly non-existent.

62 wash tubs were provided within existing wash-houses, many of these replacing old dilapidated and insanitary wooden tubs.

Drainage Tests.

Drainage tests were carried out in all new buildings by the City Engineer's Department, who also applied the test to all drains provided in connection with the introduction of water closets into older buildings. Tests are only applied by this Department when complaints of offensive smells are received and it is found necessary to ascertain the cause by such means. Only on four occasions were such tests required. At one property offensive smells had been complained about by the occupant of a shop for a considerable period; tradesmen were employed and floors were lifted, but still smells continued. As a last resort an appeal was made to this Department, and an inspection revealed that the drains and antiquated grease boxes, not cleaned out for years, into which the sink waste pipes discharged, were defective. The drainage system was renewed, modern traps provided, and the complaint ceased.

Earth Closets, Privies, and Privy Middens.

AS AT 31ST DECEMBER, 1935.

SITUATION.	NUMBER OF		TO SERVE.		
	Privies or Earth Closets.	Privy Middens	No. of Households.	Persons.	
				M.	F.
Dighty Toll House - - - -	1	...	1	2	2
Old Manse, Mains, - - - -	1	...	1	3	3
Castle Mains (South House) - - -	1	...	1	...	3
Manse Lodge (Old Glamis Road) - -	1	...	1	...	2
Trottick - - - -	14	...	20	32	41
Harestane Rd. (W. March Cottar House)	1	...	1	1	2
Harestane Road (Bleachfield) - -	1	...	1	1	1
East Pitempton - - - -	1	...	1	2	1
Pitempton Railway Cottages - -	2	...	2	2	2
517 Strathmartine Road - - -	1	...	1	1	2
Station Cottage, Cox Street - -	1	...	1	3	1
West Kirkton Cottages, Kirkton Road -	5	...	5	7	7
Gelly Cottages - - - -	2	...	2	3	4
East Lodge—McAlpine Road - -	1	..	1	1	4
Beech Strip Cottage—Coupar-Angus Rd.	1	...	1	...	...
Main Lodge—Coupar-Angus Rd, -	1	...	1	1	3
Backhill of Balgay - - - -	1	...	3	5	5
King's Cross Cottar Houses - - -	2	...	2	...	...
Hillside Farm - - - -	1	...	1	5	5
Balgay—Mains - - - -	1	...	1	1	2
Bingham Terrace (Gallowhill) - -	1	...	1	1	2
220-222 Arbroath Road - - -	...	2	2	2	8
399 Arbroath Road (Craigie North Lodge)	1	...	1	1	2
Gotterstone Cottar Houses (North) -	...	5	5	13	8
do. do. do. (South) - -	2	...	2	4	7
Barnhill Farm (Grieve's House) - -	1	...	1	1	2
434 King Street, Broughty Ferry - -	1	...	1	...	1
Arbroath Road (Linlathen W. Lodge) -	1	...	1	1	1

Three privies which served dwelling houses were abolished during the year and in their place wash-down water closets provided.

The area covered by the new sewer in the Balgillo Road district has now been entirely cleared of these antiquated fittings—water closets now serving those houses which were formerly compelled by lack of sewer facilities to use privies.

Ashpits and Ash or Dust Bins.

This year a further reduction in the number of ashpits is recorded, the figures showing that there are only 29 such conveniences in use throughout the City:—

- 14 serving one house each;
- 1 serving two houses;
- 1 serving three houses;
- 3 serving five houses each;
- 10 serving seven or more houses each.

During 1935, 961 bins which had become unfit for use were renewed.

Housing.

For quite a long time, and particularly during the past decade, Public Health and Sanitary Officials all over the country have endeavoured, through appropriate descriptive articles in numerous special reports, also detailed illustrations in their Annual Reports, and by other methods, to convince responsible authority in particular and public opinion in general, that a fairly large proportion of admittedly preventable disease and suffering is, directly and indirectly, attributable to the unwholesome, unhealthy and insanitary houses in which many unfortunate families have to live.

That these efforts have been successful is evident. The continuous general clamour of indignation heard on all sides and from all sources, demanding immediate and unceasing action until every vestige of danger has been removed, is proof enough. Rich and poor, high and low, the daily newspapers and kindred press, the Government, and His Majesty the King—who has an intimate knowledge of the problem, gained by personal visits to the homes of the poor—all join in voicing their condemnation of the deplorable housing conditions, and the appalling gross overcrowding with its inevitable mixing of sexes, existing in our great industrial centres.

With such impressive and powerful influences bearing on the whole question, the need for relating in detail in this report the harrowing discoveries frequently made by the inspectors in the course of their duties, is not now considered necessary. Local conditions and their extent are well known.

It is sufficient, and indeed gratifying, to know that all ranks

are agreed that there must be no slackening of efforts to remove these physically and morally destructive influences and conditions from our midst; and further, that these efforts should be intensified, if we are to overcome successfully in this present generation, the complete elimination of slumdom and its associate evils.

Certainly, many difficulties and numerous obstacles will be met with, which at times may retard progress and cause disappointment; but these can be avoided to a certain extent by the formation of a scheme and plan of campaign embracing within its purview (1) the whole of the insanitary and unhealthy houses and areas remaining within the city; (2) the total number of overcrowded houses and the number of persons in each separate family—this has already been made available by the recent overcrowding survey; and (3) a statement of the extent of the resources at our disposal—financial and otherwise—including an approximately reliable forecast of all commitments required for the scheme or schemes proposed.

Unquestionably our present haphazard system, or lack of system, of closing and demolishing unhealthy houses and opening out congested areas will have to be departed from if we are to give effect to the Town Planning requirements of the various Housing Acts promulgated within recent years. Meantime, our present methods render it practically impossible for the Director of Housing to prepare any satisfactory scheme of re-development or planning. To overcome this, it is essential, if success is to be achieved, that a plan or series of plans incorporating such areas as may require to be dealt with, should be prepared and considered from all aspects.

It is also of paramount importance that the whole problem should, at the earliest moment, receive immediate and serious consideration; and, if convincing argument is required, a perusal of Tables IV. and V. will be found elucidatory. During the past five years 2,259 houses have gone out of use as such, and in the same period only 2,143 houses have been erected by the Corporation—this shows that houses are being closed and demolished at a greater rate than are being provided. Further, for the five preceding years, viz., 1926-30, the number of houses erected by the Corporation totalled 2,405, showing that our house building efforts are tending to slow down, and that immediate acceleration is

required if we are to maintain even the past ratio of closing and demolition.

In addition, at the end of the year, there were 1,312 houses occupied by working class families which had been officially closed as unfit for human habitation or included within Clearance Areas; and, as we cannot legally compel the owners to carry out the repairs and improvements required to make them habitable, the conditions under which these families are now living are a matter of grave concern, calling for instant action.

If, for some reason, the rate of house building cannot be increased, then, to enable us to cope with our present housing shortage it might be considered feasible and practicable—by agreement with house owners and factors—to prolong the habitability of certain houses for a period of years by carrying out repairs and improvements mutually agreed upon; and, at the end of the stated period, the houses automatically to become the subjects of closing or demolition orders as arranged. This scheme, of course, can only be of a temporary nature, and would be departed from when house production has reached a rate equivalent to requirements. Included in it there might also be considered the establishment of a central house exchange in co-operation with house factors for the alleviation of overcrowding, and to which the tenants of overcrowded houses could resort with some hope of being re-housed in accommodation suitable to their needs.

Five Years Plan.

In the year 1933, the Local Authority furnished the Department of Health for Scotland—as required by Section 22 (2) of the Housing (Scotland) Act, 1930—with a statement of the measures proposed to be taken during the ensuing five years to deal with the housing requirements of their district. In that statement, 2,500 new houses were estimated for, at the rate of 500 per annum.

The position at the end of the second year of the Plan is as follows :—

Houses Provided				
Year	2 Rooms	3 Rooms	4 Rooms and over	Total
1934	93	252	Nil	345
1935	98	243	65	406
				<hr/> 751

These figures are disquieting and seem to indicate, if no steps are taken to accelerate the rate of house building, that our "Five Years' Plan" is to be as great a failure—so far as the output of houses is concerned—as the "Three Years' Plan" of 1930-33, which provided for 3,024 houses being erected in three years, whereas actually, only 1,392 were built.

There is no need for undue pessimism, however, if, as has already been suggested, a full and complete enquiry is instituted at the earliest possible moment, and in the manner indicated; so that effective measures can be taken to ensure that the programme will be adhered to in future and, if possible, the deficiency made good.

There now falls to be recorded the work done during the year; and the following Tables, etc., with supplementary observations, are furnished so that members of the Town Council and others interested in social work, are kept informed of the progress made to improve the housing conditions within the city.

TABLE I.

Shows the number of houses which have been erected by the Corporation and Private Enterprise during the year 1935:—

	1	2	3	4 Rooms	
	Room	Rooms	Rooms	and over	Total
By the Corporation,	—	98	243	65	406
By Private Enterprise	2	4	81	135	222
				Total	628

This is an increase of 146 on the figure for 1934; but as the 222 houses provided by Private Enterprise were mainly for sale to owner-occupiers and in the Corporation total of 406, 229 were built under the 1925 Act (without State aid), only 177 remain for Slum Clearance purposes in terms of the 1923-1930 Acts. Thus the number provided (177) falls considerably short of the dwellings required for the rehousing of persons living in insanitary houses.

TABLE II.

Houses Closed by Order; Voluntarily Closed, etc., during the year 1935 :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and-over	Total
(a) Closed by Order or Demolition Order	53	80	13	5	151
(b) Clearance Areas—					
1st Instalment	1	3	—	—	4
3rd Instalment	2	25	2	4	33
(c) Small's Wynd Improvement Scheme	15	19	5	—	39
(d) Voluntarily—houses generally in very bad repair, very damp, and not reasonably fit for human habitation	1	2	—	—	3
(e) Converted into business premises, offices, shops, or workshops, etc.,	7	14	12	15	48
(f) By absorption into other houses	3	8	3	13	27
	—	—	—	—	—
	82	151	35	37	305

TABLE IV.

Gives the number of houses erected since 1919 by the Town Council.

	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20	116	150	—	266*
1921/25	126	536	102	764
1926/30	516	1,839	50	2,405
1931	144	234	—	378
1932	118	290	—	408
1933	116	400	90	606
1934	93	252	—	345
1935	98	243	65	406
Total	1,327	3,944	307	5,578

*Includes 76 Timber Huts.

The above Table shows 5,578 houses have been provided by the Corporation, or an average of 328 per annum for the past 17 years. During that period, however, a large number of houses has gone out of use as such as is detailed in:—

TABLE V.

Houses Voluntarily Closed, Closed by Order, Demolished or turned into Business Premises:—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	63	74	12	20	169
1921/25 ...	106	86	32	47	271
1926/30 ...	376	300	66	86	828
1931	135	196	45	42	418
1932	186	229	32	25	472
1933	228	281	40	50	599
1934	225	162	44	34	465
1935	82	151	35	37	305
Total ...	1,401	1,479	306	341	3,527

This total is equal to an average annual figure of 207 houses closed, against an annual provision of 328, or a net increase of 121 per annum in the City during the period under review.

To arrive at the grand total of houses provided there are other sources of supply which must be taken into consideration, such as

closed houses made fit for occupation and re-opened, business premises converted into houses and large houses sub-divided— (Table VI.) houses provided by the beneficence of the Fleming and Gray Trusts — (Table VII.), and Private Enterprise— (Table VIII.).

TABLE VI.

Shops, etc., converted into dwelling-houses; houses reconstructed and re-opened, and large houses sub-divided.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	22	83	19	15	139
1921/25 ...	27	46	18	25	116
1926/30 ...	19	64	17	34	134
1931	4	15	5	14	38
1932	17	32	5	5	59
1933	15	49	15	30	109
1934	50	65	13	10	138
1935	13	38	3	20	74
Total ...	167	392	95	153	807

TABLE VII.

Houses provided by the Fleming, and Peter Gray, Trusts :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
By Fleming Trust (Gift of the late Robt. Fleming, Esq., LL.D.)	192	158	146	—	496
By the Peter Gray Housing Trust	24	—	—	—	24
Total					520

TABLE VIII.

Houses provided by Private Enterprise.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	—	—	1	6	7
1921/25 ...	—	1	51	261	313
1926/30 ...	—	2	459	555	1,016
1931	—	1	8	82	91
1932	—	—	11	107	118
1933	—	—	12	113	125
1934	—	—	19	118	137
1935	2	4	81	135	222
Total ...	2	8	642	1,377	2,029

These Tables, together, give the sum of 3,356, which figure, added to the Corporation's quota, makes a grand total of 8,934 houses provided during the past 17 years, being an average of 525 houses per annum over that period. From that total, however, we must deduct 3,527, the number of dwellings which have gone out of use as such during the same period, thus giving a net increase of 5,407 houses in the City, or an average annual contribution of 318.

The houses which have been erected under :—

(1) The Fleming Trust, and

(2) The Peter Gray Housing Trust

are shown in Table VII.

This year, there falls to be recorded a further extension to the Scheme under the Fleming Trust. Additional land in the west end of the City has been purchased, and the lay-out shows that 228 houses can be provided; meantime, an immediate instalment of some 70 to 80 houses is proposed.

When this latest extension is fully completed, there will be a grand total of 724 modern houses available under the scheme for working-class families.

Truly a munificent gift, and one which, as times goes on, will provide more instalments of a similar kind.

The Sir James Caird Land Acquisition Fund—Marryat Bequest.

The bequest of £100,000 was made to the City in 1928, the income from this sum for the first ten years being wholly allocated against the purchase of ground for the purpose of providing open spaces as playgrounds and the provision of playing fields within the city.

Formerly land has been acquired at :—

Blackness Road	Castle Green, Broughty Ferry
Forebank Road	Corso Street
Eton Street	and Law Crescent.

During the year under review additional ground was purchased at Scott Street and City Road, which, it is understood, will be converted into a public park.

HOUSING (SCOTLAND) ACT, 1925.

The Dundee (Blue Mountains, Etc.) Improvement Scheme, 1925; Confirmation Order, 1925, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1932.

The Dundee (Small's Wynd) Improvement Scheme, 1928, Confirmation Order, 1929, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This scheme, which embraced 315 houses and 64 other premises, can now be written off as completed so far as this Department is concerned. All the buildings have now been demolished and the tenants of the houses provided with new up-to-date dwellings in various parts of the city. Already on parts of this area new houses have been erected or are in the course of erection, substantial buildings adding considerably to the amenity of the district. There is, however, adequate reason for criticism in respect of others parts of the area which have been left in what we can only describe as a derelict condition.

Obviously, there is still room for improvement before the full benefits of this new "lung" are gained.

HOUSING (SCOTLAND) ACT, 1930.

The campaign begun under the above Act in 1930 against insanitary houses and areas in the City is still proceeding, and the result of our efforts to date is set forth in the following tables:—

Clearance Areas.

(First Instalment.)

The representations made in 1930 embraced some 18 Areas in Wards 1, 4, and 5, involved 304 dwelling houses and 73 other premises. The Director of Housing, in order to develop the area, included 23 houses and 19 other premises.

Altogether 327 Houses were included, of which 299 were occupied by 970 persons.

The position at 31st December, 1935, is:—

Houses still in Occupation.

1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1	3	2	—	6

This shows 321 houses have been Closed or Demolished, viz. :—

1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
135	161	17	8	321

Thus 98% of the houses have been Closed or Demolished, and it is hoped by the end of 1936 it will be included with :—

- (1) Queen Street, Broughty Ferry, 4 Areas, and
- (2) The Second Instalment, 12 Areas,

both of which were completed in 1933.

Bog Close and Bogwell Clearance Areas.

No change falls to be recorded in this scheme since last reported. Of the 52 houses embraced within the two areas comprising

- 46 1-roomed houses;
- 4 2-roomed houses; and
- 2 4-roomed houses

two one-roomed houses were still in occupation at the end of the year. It would appear that a matter outwith our jurisdiction—the purchase of the property—has been the stumbling block preventing the displacement of the two tenants concerned. However, towards the end of the year a Joint Report in terms of Section 16 was submitted to the Local Authority in respect of these two houses, and the Agent gave an undertaking not to relet the dwellings when the present tenants are displaced. Thus, we have hopes that early this coming year we will be able to write “finis” to these schemes.

Third Instalment.

This consisted of 57 Areas, situated in Wards 1, 2, 4, 5, 6, and 9, and comprised 834 occupied and 56 unoccupied houses and 100 other premises. In order to satisfactorily develop the various areas, the Director of Housing originally included 111 houses and 80 other premises, while during 1935 a further two houses, including one unoccupied, were added in terms of Section 3, bring-

ing the total number of houses within these Areas to 1,003, having a population of 3,342.

The position at 31st December, 1935, is:—

Houses Still in Occupation.

1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
367	357	34	10	768

showing that 235 houses have been Closed or Demolished, viz. :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
Prior to Representations, ...	35	18	3	1	57
Since Representations,	76	89	7	6	178
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	111	107	10	7	235

or approximately 23 per cent. of the total houses.

Clearance Areas 92 to 104.

These Areas were dealt with by the Town Council during 1935, in terms of Section 1 of the Act, by way of Clearance Resolutions.

Clearance Areas 92 to 100 are situated in Wards 2, 3 and 8, and embrace 109 houses and 17 other premises. To make effective schemes and enable the Areas to be satisfactorily developed, an additional 47 houses and 17 other premises were included by the Director of Housing, in terms of Section 3 of the Act, making a total of 156 houses (of which 29 were unoccupied) and 34 other premises.

Clearance Area 101, Ward 2 embraces 43 houses and 5 other premises. To make this scheme effective and enable the Area to be satisfactorily developed an additional 3 houses and 17 other premises were included by the Director of Housing in terms of Section 3 of the Act, making a total of 46 houses (of which 9 were unoccupied) and 22 other premises.

Clearance Area 102, Ward 1.—Embraces 56 houses (of which 13 were unoccupied) and 9 other premises.

Clearance Area 103, Ward 8.—Embraces 53 houses and 5 other premises.

Clearance Area 104, Ward 8.—Embraces 56 houses (of which 3 were unoccupied) and 1 shop.

At the end of the year, beyond a small number of houses included in these 13 Areas which were formerly the subject of Closing Orders and from which the tenants had been displaced, there is little or no alteration to record. The purchase of the properties concerned awaits the consideration of the appropriate Committee of the Town Council.

Insanitary Buildings.

Since 1924, the year in which the Post-War Housing Policy of the Council was inaugurated, 703 Reports and Representations have been submitted to the Local Authority in order to deal with uninhabitable, insanitary, and obstructive buildings or areas.

The total number of houses has now reached 6,596 and the following tables show, in detail, the position as at 31st December, 1935.

Year	No. of Representations	REPRESENTED. No. of Rooms				Total Houses	No. of other Premises
		1 Room	2 Rooms	3 Rooms	4 Rooms and over		
1924/25	17 & 1*	112	69	5	2	= 188	26
1926/30	237 & 19*	877	985	130	49	= 2,041	173
1931	16*	237	262	14	7	= 520	101
1931	48	47	117	14	8	= 186	—
1932	20	36	27	14	4	= 81	—
1932	2*	46	4	—	2	= 52	—
1933	147	304	503	55	16	= 878	—
1933	57*	478	464	44	15	= 1,001	180
1934	46	71	110	20	12	= 213	—
1934	11*	312	424	51	8	= 795	17
1935	49	108	128	23	3	= 262	—
1935	10*	209	111	10	2	= 332	56
1935	23†	12	21	10	4	= 47	17
	703	2,849	3,225	390	132	= 6,596	570

*Improvement or Clearance Area.

†The Director of Housing, in order to satisfactorily develop certain areas already represented, included the above 47 houses and 17 other premises.

Of the 6,596 houses Represented or Reported:—

462 have been rendered fit under Repair Notices;

187 have been rendered fit under Undertakings, etc.;

while 1,312 houses, declared to be unfit are still in occupation made up as follows :—

230	Individual Unfit Houses;	
6	Clearance Areas (18) (1st Instalment);	
2	Bog Close Clearance Area;	
768	Clearance Areas (57) (3rd Instalment);	
123	Do.	(Nos. 92-100);
37	Clearance Area	(No. 101);
43	Do.	(No. 102);
53	Do.	(No. 103);
50	Do.	(No. 104).

In addition, Reports and Representations dealing with 350 houses have been submitted to the Local Authority and have yet to be dealt with, viz. :—

Individual Houses	231
Clearance Areas	119

Closing or Demolition Orders.

Section 16 (1).

48 Reports, involving 252 houses, were made to the Local Authority in terms of the above section, viz. :—

103	one-roomed houses;
123	two-roomed houses;
23	three-roomed houses; and
3	four or more roomed houses;

and these were disposed of as follows :—

Demolition Orders were served upon the owners of 38 houses, viz. :—

3	one-roomed houses :
34	two-roomed houses; and
1	five-roomed house.

Closing Orders were served upon the owners of 6 houses, viz. :—

2	one-roomed and closet houses;
1	two-roomed house; and
3	three-roomed houses.

Three Reports withdrawn involving 13 houses, viz. :—

- 1 one-roomed house;
- 7 two-roomed houses; and
- 5 three-roomed houses.

33 Reports, involving 175 houses, await consideration by the Local Authority, viz. :—

- 87 one-roomed houses;
- 74 two-roomed houses;
- 12 three-roomed houses; and
- 2 four-roomed houses.

Six owners gave undertakings not to let for human habitation until rendered fit for that purpose, 20 houses, viz. :—

- 3 three-roomed houses.
- 7 two-roomed houses; and
- 10 one-roomed houses;

Repair Notices.

SECTION 14.

1 Report, involving 10 houses, was made to the Local Authority in terms of the above Section, viz. :—

- 5 one-roomed houses; and
- 5 two-roomed houses.

The owner of the above houses requested in terms of Section 17 that a Demolition Order be substituted, and to this the Local Authority agreed. One Report previously submitted in terms of Section 14, involving 16 houses, was made the subject of a Demolition Order at the owner's request.

Summary in regard to Housing conditions and alterations during 1935.

I.—Particulars of Houses (329) Improved :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) At properties that had been "Closed by Order" for a period	29	15	—	—
(b) At instance of Sanitary Inspector, but not "reported" to Committee	33	151	10	4

(c) After Plans had been submitted to
and approved of by the Works

Committee	—	2	6	24
(d) Two or more houses made into one	—	1	3	3
(e) Houses divided and improved	1	7	—	8
(f) After Notice under Sec. 14	4	24	1	3

II.—Shops and other premises converted into dwelling-houses
(9):—

	1	2	3	4 Rooms
	Room	Rooms	Rooms	& over
(a) 6 Shops	3	2	1	—
(b) 2 Stores	—	1	—	1
(c) 1 Office	—	—	—	1

III.—New Houses completed and ready for occupation during the
year:—

(a) Under the Corporation Housing Schemes.

	2	3	4
	Rooms	Rooms	Rooms
Ward II., (a) West Port; (b) Hawkhill ...	14	20	—
Ward III., Marshall Street	12	—	—
Ward IV., (a) Forebank Road and Bonny- bank Road; (b) Mid Craigie	—	24	8
Ward V., Graham Street	48	124	57
Ward XI., King Street	3	6	—
Ward XII., Various Schemes	21	69	—

Total Houses — 406.

(b) By Private Enterprise.

	1	2	3	4 Rooms
	Room	Rooms	Rooms	& over
Ward 1	—	—	2	13
Ward 2	—	—	1	5
Ward 3	2	3	3	5
Ward 4	—	—	9	17
Ward 5	—	—	—	8
Ward 7	—	—	16	32
Ward 8	—	—	26	32
Ward 9	—	1	—	14
Ward 10	—	—	7	2
Ward 11	—	—	5	7
Ward 12	—	—	12	—

Total, 222 houses.

Giving a grand total of 628 new houses erected throughout the year.

IV.—Particulars of dwelling-houses Closed (305) for human habitation during the year 1935 in whole or in part:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Voluntarily — houses generally in very bad repair, very damp, and not reasonably fit for human habitation	1	2	—	—
(b) Converted into business premises, offices, shops or workshops, etc.	7	14	12	15
(c) By absorption into other houses ...	3	8	3	13
(d) Closed by Order or Demolition				
Order	53	80	13	5
(e) Clearance Areas	3	28	2	4
(f) Small's Wynd Improvement Scheme	15	19	5	—
Total	82	151	35	37

V.—Dwelling-houses Demolished (223) during the year 1935:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Dwelling-houses that had been Closed by Order or Demolition				
Order	8	36	9	1
(b) Dwelling-houses that had been Closed Voluntarily	1	13	9	11
(c) Clearance Areas	6	15	1	3
(d) Small's Wynd Improvement Scheme	52	50	8	—
Total	67	114	27	15

In addition to the above, 47 other premises were demolished, viz. :—

6 Workshops.	13 Stores	19 Shops
1 Garage.	1 Clubroom.	1 Office.
1 Bakehouse.	1 Stable.	2 Studios, Etc.
1 Golf School.	1 School Hall.	

VI.—Net Results for 1935 :—

The net result for the year is that there are 397 more houses available for human habitation than at 31st December, 1934, i.e., houses of :—

1 Room	2 Rooms	3 Rooms	4 Rooms and over
67 less	11 less	292 more	183 more

VII.—The total number of Dwelling-houses (Private and Corporation) in course of erection (1,177)—all stages—at 31st December, 1935, is as follows :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 1	—	—	6	12
Ward 2	—	—	18	—
Ward 3	—	—	2	12
Ward 4	32	126	343	167
Ward 5	—	120	120	46
Ward 7	—	1	26	45
Ward 8	—	—	34	9
Ward 9	—	—	13	9
Ward 10	—	—	4	4
Ward 11	—	—	3	12
Ward 12	12	—	1	—
Total	44	247	570	316

VIII.—Estimated Number of Inhabited Houses excluding Institutions and other large establishments within the Burgh of Dundee as at 31st December, 1935—corrected (added to and deducted from). Based on Census Return of 26th April, 1931, viz. :—46,229 houses.

Year.	1 Room Add. Deduct.	2 Rooms Add. Deduct.	3 Rooms Add. Deduct.	4 Rooms and over Add. Deduct.	Total
From Census Return	6,347 or 13.7%	22,252 or 48.2%	10,405 or 22.5%	7,225 or 15.6%	46,229
1931 ...	— 27	— 4	286 —	54 —	309
1932 ...	— 105	31 —	328 —	87 —	341
1933 ...	— 213	— 116	387 —	183 —	241
1934 ...	— 175	— 4	240 —	94 —	155
1935 ...	— 67	— 11	292 —	183 —	397
	— 587	31 135	1,533 —	601 —	47,672

Thus giving at 31st Dec., 1935 :—

5,760	22,148	11,938	7,826
or 12.08%	or 46.46%	or 25.06%	or 16.40%

of which 3,569 are Owner Occupied, viz. :—

2	53	224	3,290
or .034%	or .23%	or 1.87%	or 42.03%

Housing (Scotland) Act, 1935.

This Act came into operation on the 2nd August, 1935, and the preamble states, that it is “ An Act to make further and better provision for the prevention of overcrowding in Scotland, the re-development of areas in connection with the provision of housing accommodation, and the re-conditioning of buildings, to make provision for the establishment in Scotland of a housing advisory committee and of commissioners for the management of local authorities’ houses, to amend the enactments relating to housing operations of public utility societies and other bodies, to provide for the consolidation of housing accounts and subsidies, and to amend the enactments relating to housing in Scotland; and for purposes connected with the matters aforesaid.”

Following the passing of this Act, the Department of Health for Scotland issued two memorandums, one “ Changes in Housing Law and General ” dealing with the most important changes in the law relating to housing which are affected by the Act, etc.; and the other, “ Prevention of Overcrowding,” describes the purposes of the overcrowding provisions of the Act, viz. :—“ To provide a statutory standard for the measurement of overcrowding; to place a duty on every local authority to ascertain by survey the extent of overcrowding in their district on the basis of that standard; to secure the provision of the additional accommodation needed for overcrowded working-class families; and, after the new accommodation has been provided, to prevent overcrowding occurring in the future.”

Overcrowding Survey.

To comply with the requirements of the Act, the Local Authority instructed the Medical Officer of Health and the Chief Sanitary Inspector to make a survey of all houses within the city of £45 rental and under, with a view of ascertaining the extent to which overcrowding existed.

With the assistance of a few temporary men, the work was commenced in October, and all the houses to which the Act applied, numbering 46,476, were inspected. On 31st December, 1935, a Joint Report was issued by the Officials concerned, showing, not only the extent of the overcrowding within the City, but also the number of houses which were considered unfit for human habitation.

This Report will receive the consideration of the Town Council in the early part of 1936; and it is anticipated, proposals will be made to cope with overcrowding by the provision of a set number of houses of suitable sizes sufficient, at least, to meet the requirements of the more serious cases.

The undernoted synopsis of the Report shows under several headings the impressive, one might say startling, figures revealed by the Survey:—

Standard of Overcrowding.

The standard of overcrowding adopted under the Housing (Scotland) Act, 1935, is based on three factors:—

1. The number of persons sleeping in a house, the maximum permitted being—

1 room — 2 persons;

2 rooms— 3 persons;

3 rooms— 5 persons;

4 rooms—7½ persons;

5 rooms—10 persons, with an additional two in respect of each room in excess of five or more.

No account is taken of a child under one year, while a child between 1 and 10 years of age is reckoned as half a unit.

2. Two persons of different sexes over the age of ten years must not sleep in the same room unless they are living together as husband and wife.
3. The third factor lays down a floor area standard.

In carrying out the survey, factors 1 and 2 only were used, the Department of Health for Scotland and the Housing Committee of Dundee Town Council having decided that the third factor could be neglected for this particular purpose.

Houses and Families Surveyed.

46,476 houses occupied by 47,119 families were surveyed.

The size distribution is as follows :—

	1 rm.	2 rms.	3 rms.	4 rms.	5 rms.	6 rms. and over
Houses,	6,176	22,235	11,966	3,445	1,466	1,188
Families,	7,186	22,228	11,784	3,362	1,416	1,143
Total Houses—46,476.			Total Families—47,119.			

Total Number of Overcrowded Families.

12,641 families or 26.82 per cent. of the total surveyed were found to be overcrowded. Of these 114 were overcrowded by reason of the sex separation factor only. These 114 families occupied one-roomed houses. 12,527 were overcrowded owing to the excessive number of occupants. The number of overcrowded families and the percentages for each size of house are as follows :—

	1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	6 and over apart.	Total
Number,	2,494	7,923	2,078	135	8	3	12,641
Percentage,	34.7	35.6	17.63	4.01	.56	.26	26.82

These figures cover all the overcrowded houses in the City, whether they are fit for habitation or not.

It is evident that overcrowding is most prevalent in houses of one and two rooms.

Housing Needs.

These can be conveniently shown under three groups :—

A.—Families Overcrowding Fit Houses.

B.—Overcrowded Unfit Houses.

C.—Unfit Houses which are not Overcrowded.

In the statutory sense, Group A. will probably be dealt with as overcrowding, and Groups B. and C. as unfit houses.

A.—FAMILIES OVERCROWDING FIT HOUSES.

Total number—11,125. Percentage of total—23.61. The figures applicable to each size of house are :—

	1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	6 & over apart.	Total
No. overcrowded,	1,785	7,191	2,005	134	7	3	11,125
Percentage	24.83	32.35	17.01	3.98	.49	.26	23.61

It should be noted that these figures refer to families and not to houses. For example, of the 1,785 families overcrowding one-apartment houses, 1,411 occupy one-apartment houses let as such, the others occupy single rooms sub-let to them by the tenants of larger houses.

To provide for these overcrowded families, the following houses are required :—

					6 & over	
1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	apart.	Total
449	1,217	5,906	3,296	584	47	11,499

Certain existing houses will, however, be available. These include a small number of empty houses and a large number of fit houses which will be rendered vacant by the removal of the families which are too large to occupy them. The actual figures are as follows :—

Fit Existing Houses—

						6 & over	
	1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	apart.	Total
(1) Empty ...	26	64	53	39	29	16	227
(2) To be rendered vacant, ...	1,411	7,077	2,000	135	6	3	10,632
(3) Total	1,437	7,141	2,053	174	35	19	10,859

The figures relating to overcrowded families occupying fit houses and these showing the existing houses which will be available being now empty or to be vacated under the de-crowding policy show that there is in the City a surplus of 6,912 one and two-roomed houses, and a deficiency of 7,552 larger houses distributed thus :—

						6 & over	
	1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	apart.	Total
Surplus	988	5,924	—	—	—	—	6,912
New Houses required	—	—	3,853	3,122	549	28	7,552

B.—OVERCROWDED UNFIT HOUSES.

1,516 of the houses were found not only to be overcrowded but are entered in the records as being unfit for human habitation. In regard to size, these houses are classified as follows :—

1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	Total
709	732	73	1	1	1,516

If these houses are demolished or cease to be used as houses, and if the families dislodged are to be provided with new houses, which will provide each family with accommodation sufficient and no more to prevent overcrowding according to the statutory standard, 1,605 houses will be required, arranged according to size, as follows:—

1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	6 apart.	7 apart.	Total
73	433	716	326	55	1	1	1,605

C.—UNFIT HOUSES WHICH ARE NOT OVERCROWDED.

There are 1,918 houses which are scheduled as unfit for human habitation, but which are not overcrowded. If these are no longer available, a corresponding number of new houses must be provided for the dislodged tenants. If each family is to be given a house just large enough to avoid overcrowding in terms of the Act, the sizes must be as follows:—

1 apart.	2 apart.	3 apart.	4 apart.	5 apart.	6 apart.	Total
1,355	466	86	8	1	2	1,918

Surplus and Deficiency—Summary of A, B and C.

The following table shows for the whole City the surplus or deficiency of houses of various sizes resulting from the displacement of occupants because of overcrowding or unfitness, assuming that the vacated fit overcrowded houses are to be used so far as possible by other displaced families of suitable size:—

	A		B		C		A, B, & C	
	Overcrowded		Overcrowded		Not Overcrowded		A, B, & C	
	Fit	Unfit	Fit	Unfit	Fit	Unfit	Combined	Combined
	Sur.	Defi.	Sur.	Defi.	Sur.	Defi.	Sur.	Defi.
1 apart.	988	—	—	73	—	1,355	—	440
2 apart.	5,924	—	—	433	—	466	5,025	—
3 apart.	—	3,853	—	716	—	86	—	4,655
4 apart.	—	3,122	—	326	—	8	—	3,456
5 apart.	—	549	—	55	—	1	—	605
6 apart.	—	28	—	1	—	2	—	31
7 apart.	—	—	—	1	—	—	—	1
	6,912	7,552	—	1,605	—	1,918	5,025	9,188

Assuming that the 440 families which can be accommodated without overcrowding in one-roomed houses are given two-roomed houses, the deficiency in one-roomed houses disappears and the surplus of two's becomes 4,585.

The Committee may think it wise to consider that the deficiency figures are below the actual requirements. This is likely to be the case for three reasons :—

- (1) The overcrowding survey did not include measurements of the floor space. The application of this factor would add to some extent to the total number of overcrowded houses, especially among those of one room.
- (2) It has been noted that the figures relating to unfitness were obtained from records prepared by the Sanitary Inspectors in the course of their routine work during the last few years. If these records were brought up-to-date, the number of houses considered to be unfit would no doubt be increased.
- (3) In dealing with unfit houses, by clearance area procedure or re-development area procedure, a number of houses which are neither overcrowded nor unfit must be demolished and provision made for the displaced tenants.

IX.—The Official Return submitted to the Department of Health for Scotland for the year ended 31st Dec., 1935, is :—

Housing (Inspection of District) Regulations (Scotland) 1928.

1. Number of dwelling-houses inspected*			
(a) during the year	-	-	(a) 1195
(b) since 1st January 1930	-	-	(b) 6109
2. Number of dwelling-houses which, on inspection, were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation			
(a) during the year	-	-	(a) 497
(b) since 1st January 1930	-	-	(b) 3686

Housing (Scotland) Act, 1925.

3. Number of cases where intimations were given under Section 20 (1) as to insufficient water-closet accommodation :—	-	-	
(a) cases where requirements complied with by owners	-	-	
(i) With assistance under the Housing (Rural Workers) Acts, 1926 and 1931	(a)	(i)	
(ii) Without such assistance	(ii)		
(b) cases where works carried out by Local Authority after failure of owners to do so	-	-	
(c) cases still pending	-	-	

These provisions do not apply in Burghs.

- | | | | | | | |
|----|--|-----|---|-----|--------|---|
| 4. | Number of cases where W.C. accommodation was provided at the instance of the Local Authority without an intimation under Section 20 (1) | - | - | - | - | These provisions do not apply in Burghs |
| 5. | Number of houses of (a) one apartment, and (b) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111 | (a) | - | (b) | 54 (K) | |

Housing, Town Planning, Etc. (Scotland) Act, 1919.

- | | | | | | |
|------|---|---|---|---|--|
| 6. | Number of cases where notices were served under Section 40 (1) to provide dwelling-houses with water supply :— | - | - | - | These provisions do not apply in Burghs |
| (a) | cases where requirements complied with by owners | - | - | - | |
| (i) | With assistance under the Housing (Rural Workers) Acts, 1926 and 1931 | - | - | - | |
| (ii) | Without such assistance | - | - | - | |
| (b) | cases where works carried out by Local Authority after failure of owners to do so | - | - | - | |
| (c) | cases still pending | - | - | - | |
| 7. | Number of cases where water supply was provided at the instance of the Local Authority without a notice under Section 40 (1). | - | - | - | These provisions do not apply in Burghs. |

Housing (Scotland) Act, 1930.

- | | | |
|-----|---|----------|
| 8. | Number of dwelling-houses in respect of which notices were served under Section 14 (1) | 10 |
| 9. | Number of dwelling-houses rendered fit for human habitation following on notices under Section 14 (1) | |
| (a) | With assistance under the Housing (Rural Workers) Acts, 1926 and 1931 | (a) Nil. |
| (b) | Without such assistance | (b) 32 |
| 10. | Number of dwelling-houses in respect of which work has been done by the Local Authority under Section 15 (1) | Nil. |
| 11. | Number of dwelling-houses which were rendered fit for human habitation at the instance of the Local Authority without a notice under Section 14 (1) | Nil. |

12.	Number of dwelling-houses in respect of which, in terms of Section 17, a demolition order or closing order under Section 16 (3) has been substituted for a notice under Section 14 (1) - - - -	26
13.	Number of dwelling-houses in respect of which notices were served in terms of Section 16 (1) - - - -	129
14.	Number of dwelling-houses referred to in 13:—	
	(a) which have been rendered fit for human habitation	
	(i) With assistance under the Housing (Rural Workers) Acts, 1926 and 1931 - (a) (i)	Nil,
	(ii) Without such assistance - - - (ii)	31
	(b) in respect of which undertaking has been given that the house will not be used for human habitation until it has been rendered so fit - - - - (b)	56
	(c) in respect of which demolition orders† have been made under Section 16 (3) (c)	67
	(d) in respect of which closing orders have been made under Section 16 (3) and (4) - (d)	6
15.	Number of dwelling-houses in respect of which closing orders have, in terms of Section 16 (3), been determined by the Local Authority, following upon the houses having been rendered fit for human habitation - - - -	2
16.	Number of houses in respect of which advances have been made in terms of Section 34 towards cost of repairs and amount so advanced - - - -	Nil.

*Houses inspected more than once should be entered only once.

† If permission to reconstruct a building has been granted, the number of houses existing prior to the reconstruction should be stated (see in this connection, sub-section (3) of Section 49 of the Housing (Scotland) Act, 1930).

Note.—Any general information or observations as to the character of defects usually found to exist, as to the extent to which overcrowding was found to prevail and the steps taken to remedy it, or as to the work of inspection generally, should be entered in the space below :—

Inadequate lighting and ventilation; dampness in houses, houses not provided with sinks and inside water supplies; insufficient water closet accommodation; want of suitable storage for foodstuffs and fuel; insufficient ashpit or ashbin accommodation; lack of facilities for the washing and drying of household and wearing apparel; and open spaces around buildings restricted.

The preliminary survey in accordance with the terms of the Housing (Scotland) Act, 1935, showed that overcrowding was prevalent within the city. As opportunity occurs endeavours are made towards the re-housing in suitable dwellings of the more serious cases of overcrowding.

The Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1935.

The following tables show the number of applications made under the Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1935, and how disposed of:—

Year	BY TENANTS.			BY OWNERS.		
	No. of Applications	Granted	Refused	No. of Applications	Granted	Refused
1920/25	116	102	14	1	1	—
1926/30	42	36	6	9	8	1
1931	2	2	—	1	1	—
1932	713	677	36	149	148	1
1933	83	70	13	142	136	6
1934	148	108	40	19	19	—
1935	165	154	11	13	15	—
	1269	1149	120	334	326	8

This shows that within the past 16 years, tenants of 1,269 houses have made application in terms of the above Acts for Certificates that their houses were not in all respects in a reasonable state of repair.

During the year under review 165 applications were made, an increase on the number for 1934, and of these 154, or 94%, were granted.

Of the 11 applications for Certificates under the heading "Refused," in 10 instances the defects within the dwellings were of a minor nature, and on being brought to the notice of the house agents, the necessary repairs were carried out. In one case the application was withdrawn.

Tents and Vans.

88 visits of inspection were made to these movable dwellings, the greater number of which were the temporary canvas homes of holiday makers; others, the somewhat more elaborate habitations of persons engaged in the amusement catering business.

Generally, they have given little cause for interference, but at one area in the west end of the city, sublet by the tenant for the purpose of housing caravans, there were neither suitable water closet nor refuse storage accommodation for the occupiers. The matter was immediately taken up with the owner of the ground when he was asked to provide the accommodation required, or alternatively, remove the caravans from the area; he chose the latter and is not to renew the tenancy.

Within recent years there has been a definite increase in the numbers of persons holidaying under canvas, and as the majority are only in residence for a week or a fortnight at the most, the owners of the camping sites are loath to face the expense of providing sanitary conveniences. Locally, we have had little trouble so far, but if the practice increases it may be necessary for the Local Authority to consider the making of bye-laws for the better regulation of dwellings of this nature and the sites on which they are situated.

Housing of Seasonal Outworkers.

Calls for little comment, there being a sufficiency of local labour who return to their own homes within the city after the day's toil in the fields.

Common Lodging Houses.

The following premises within the Burgh are registered as Common Lodging Houses having accommodation undernoted :—

	Lodgers	
	Male	Female
55 Commercial Street,	242	—
3/5 Craig Street,	137	—
19 Overgate,	51	—
43 Overgate,	39	—
25 North Lindsay Street,	56	—
130 Overgate,	16	22
77 Overgate,	24	12
97 Overgate,	53	38
67 Cowgate,	19	—
35 Cowgate,	14	—
67 Seagate,	8	—
	<hr/>	<hr/>
	659	72
	<hr/>	<hr/>

Three additional houses were registered during the year. These were formerly on the register of Houses Let in Lodgings, but as the conditions generally prevailing justified their transfer to the Common Lodging House class the previous registrations were cancelled and the latter insisted on. In one case some difficulty was experienced, and as a result court proceedings ensued, after which the necessary application was made by the occupier of the house. To such houses 562 visits of inspection were made throughout the year.

The SEAMENS' BOARDING HOUSE (DUNDEE SAILORS' HOME AND HOSTEL) and the SALVATION ARMY HOME AND METROPOLE FOR WOMEN are well kept—clean and comfortable, the former also being available for commercial “boarders.”

Houses Let in Lodgings.

There were on the register at the end of the year 104 Houses Let in Lodgings, which received 228 inspections. In view of the survey of the houses within the city in terms of the Housing (Scotland) Act, 1935, to determine the overcrowding prevailing in our midst it was not considered necessary to visit any of these places during night-time as in former years.

Amongst the houses in this class are a number which we would prefer to see on our Common Lodging House register, but as the conditions of let are legally outwith such category our hands are somewhat tied in this direction. To these houses, however, the inspectional visits are more frequent, so that we may be assured they are maintained satisfactorily. Three houses, as reported under the preceding heading, were transferred to the Common Lodging House register.

Factories and Workshops.

To such places 1061 visits of inspection were made; nothing of an unusual nature falls to be recorded thereanent. Usually the premises demanding the particular attention of inspectors are those in which persons employed must, during working hours, remain on duty within workrooms, and it is in connection with these places that ventilation, heating, and lighting, should be efficiently arranged. Generally employers are alive to the fact that hygienic conditions are essential—more recently constructed workshops show this to be the case—otherwise broken time, with a consequent financial loss to employer and employee results.

In 37 instances the cleanliness of the premises did not altogether comply with the standard considered necessary, but in every case verbal suasion was sufficient for remedial measures to be applied.

Seventeen Intimations were received from H.M. Inspector of Factories as under :—

Nature of Defect.

Improvements Effected.

Bakehouse walls require lime-washing.	Walls linewashed.
Bakehouse walls dirty.	Walls repainted.
Bakehouse floor dirty and changing room not maintained in a clean state.	Floor scraped and cleansed and changing room lime-washed.
Bakehouse walls dirty.	Walls painted.
Workshop walls dirty.	Walls brushed down and workshop cleaned.
Intervening space between W.C. and workshop not ventilated.	Ventilation shaft carried through roof.
No intervening ventilated space provided between W.C. and workshop.	Work carried out.
No intervening ventilated space provided between W.C. and workshop.	Work carried out.
No intervening ventilated space provided between W.C. and workshop.	Improvements not yet carried out.
W.C. apartment neither properly ventilated nor screened.	Work completed.
W.C. apartment not ventilated and no intervening space provided.	Improvements not yet carried out.
Ventilation inadequate in underground workroom.	Outer end of ventilating shaft enlarged.
Separate sanitary accommodation not provided for both sexes.	Improvements not yet carried out.
Separate sanitary accommodation not provided for both sexes.	Satisfactory arrangements made.
No screening at accesses to W.C.'s for separate sexes.	Improvements not yet carried out.
No sanitary accommodation for garage.	Water closet provided.
No intervening ventilated space provided between workroom and W.C.; trichlorethylene exhaust pipe passes through women's W.C. apartment.	Intervening space provided; exhaust pipe altered to new position and carried up to chimney head; boiler flue carried up by new piping.

The following Workshops, etc., are upon the Register at 31st December, 1935 :—

TRADE OR BUSINESS.	Workshops	Domestic Workshops	Homework	Workplaces
Blacksmiths, Cartwrights and Carriage Builders	14	0	0	0
Boot Repairers	78	7	0	0
Cabinetmakers, Joiners, and French Polishers	58	0	0	0
Cycle and Motor Mechanics, Enamellers and Vulcanisers	47	0	0	0
Dental Mechanics	34	5	0	0
Dress, Mantle, and Corset Makers	36	16	0	0
Engineers	23	0	0	1
Electro - Platers, Wire Workers, Blind Makers and Bellhangers	5	0	0	0
Florists	0	0	0	20
Furriers	4	2	0	0
Granite and Marble Cutters, and Masons	1	0	0	27
Hairdressers and Wigmakers	0	6	0	139
Hotels and Restaurants	0	0	0	39
Milliners	25	1	0	0
Painters	0	0	0	49
Photographers	10	0	0	2
Piano and Gramophone Repairers	5	0	0	0
Picture Framers, Gilders, and Glaziers	11	0	0	0
Plasterers	0	0	0	19
Plumbers and Tinsmiths	52	0	0	0
Saddlers and Leather Cutters	7	0	0	0
Slaters	0	0	0	23
Stamp Cutters, Engravers and Ticket Writers	4	0	0	0
Sugar Boilers	7	0	0	0
Tailors	44	11	1	1
Umbrella Makers and Repairers	3	0	0	0
Underclothing, Baby Linen, and Blouse Makers, Hosiers and Knitters... ..	27	0	0	0
Upholsterers and Carpet Sewers	12	1	0	0
Waste, Rag and Metal Merchants	5	0	0	9
Watch and Jewellery Repairers and Opticians	37	3	0	0
Miscellaneous, i.e., Gut Manufacturer, Mica Makers, Clay Pipe Makers, Paper Bag Makers, Bottlers, Potted Meat Manufacturers, Oil Refiners, Manufacturing Chemists, Sack Repairers, Laundries Basket Makers, Brush Makers, Scale Makers, etc.	40	2	0	6
	589	54	1	335

Bakehouses.

The following bakehouses are upon the Register :—

Occupied factory bakehouses	...	...	...	55
(Included in this number are 8 underground).				
Occupied workshop bakehouses	...	...	...	38
(Included in this number are 3 underground).				
Bakehouses empty but fit for occupation	...	...	...	1

An old established bakery business in the centre of the city was within the area required by a large firm of warehousemen as a site for the erection of new and commodious premises. Its demolition removes a name from the register which has long been associated with the trade.

Premises formerly occupied as a dairy in the north end of the city were converted and made suitable for the purpose of baking. When first brought to our notice we did not approve of the scheme, but as the proposed alterations were of an extensive nature and would, undoubtedly, make the premises fit for the purpose—although immediate environment was not altogether ideal—the work was allowed to proceed, and eventually the necessary permission given to commence baking.

In another instance it was discovered that a backshop—altogether unsuitable for such purposes—was being used by a member of the baking fraternity. As the premises did not lend themselves to this class of trade, immediate action was taken to have same discontinued.

Four intimations in respect of unsatisfactory conditions within bakehouses—particularly in regard to the limewashing of walls—were brought to our notice by H.M. Inspector of Factories, and early action resulted in the necessary work being carried out.

There are within our city a number of premises occupied by this trade which cannot be looked upon as entirely satisfactory. The buildings in which they are situated are of no mean age and in themselves should have disappeared some years ago. However, the occupiers do make some effort to carry on their businesses in a proper manner, but there can be no doubt that within the next few years we shall be compelled to prescribe the order “finis” to these places which cannot be brought up to the grade public health now demands.

To bakehouses, some 760 visits were paid throughout the year.

The Milk and Dairies (Scotland) Acts ; and Orders.

Registers.—At the end of the year the Registers stood as follows :—

Dairymen or Cow-Keepers	...	...	...	...	32
Retail Purveyors of Milk (including Producer-Retailers)					862
made up as under :—					
Purveyors from shops, milkhouses, etc.	...	...	...	...	764
Purveyors from vans	...	...	...	...	35
Purveyors resident outwith the City but registered to purvey milk within it from vans on streets					27
Purveyors from shops or milkhouses together with vans on streets	...	...	...	...	36

Within the registered cowsheds there are housed 506 cows. Inspections totalled to (a)dairies, 382; and (b) shops and other premises where milk is sold, 2,946.

All the premises were limewashed to schedule—in April and October—and while the dairies within our area cannot by a long stretch of the imagination be termed “ Model Dairies,” they have, on the whole, been maintained in a manner giving rise to no serious complaint. As in former years, the greatest bugbear has been the improper grooming of animals, and frequently dairymen have had to be warned as to the necessity of thorough cleanliness, particularly at times of milking.

Infrequent removal of manure has also given some bother.

There are 5 cowsheds where 9 milk cows are kept, exempt from Registration, under Section 2 of the 1914 Act “From which a person sells milk only in small quantities and for their own consumption to persons in his employment or to neighbours.”

The premises at Magdalene's Kirkton are not altogether up to the necessary standard for the purposes of this trade, but there are prospects during the coming year they will disappear from our list—the estate on which the buildings are situated having been purchased by the Corporation for housing purposes.

Generally, Articles 4 to 14 of The Milk and Dairies (Scotland) Order, 1934, are being complied with.

Exceptions are principally in connection with the smaller shops carrying on a mixed business not adequately covering with protective material the container in which milk is placed for sale by retail.

Improvements which were effected at registered dairy premises during the year included :—

Mains of Baldovan.—Timber-work of roof of byre and reed repaired and entirely re-slatted; improved ventilation of byre by means of louvred fittings and milkhouse and washhouse provided with additional ventilators.

Forthill Dairy Farm, Broughty Ferry.—Section of court at which milk is handled, covered; new milkhouse under construction.

Milk (Special Designations) Order (Scotland), 1930.—In terms of this Order there are licensed;—

2 Producers of Pasteurised Milk, and

87 Retail Sellers thereof.

A total of 89, as against 80 last year; and

1 Producer of Grade A (T.T.) Milk,

1 Dealer and Bottler of Grade A (T.T.) Milk,

2 Dealers in Grade A (T.T.) Milk,

2 Producers of Certified Milk, and

4 Dealers in Certified Milk.

The numbers under this heading are much on a par with last year, there being no newcomers in the field as producers of graded milk.

Although the number of retailers of pasteurised milk may appear small, it should be noted that much of the milk now offered for sale in bottles as sweet milk has gone through the process of pasteurisation. Actually we believe the sale of milk so treated is on the upgrade; an examination of the applications for registration as milk purveyors show the majority to be for the restricted or part registration of “for the sale of milk in bottles only.”

Food Inspection.

FOODSTUFFS ARRIVING AT THE PORT OF DUNDEE, EITHER
DIRECTLY FROM ABROAD OR BY COASTWISE TRAFFIC.

The following two tables show the kind and quantity of foods arriving by waterway at the Port during the year.

The total is 51,153 tons 12 cwts. 0 qrs., as against 67,656 tons 11 cwts. 3 qrs. last year, and 56,576 tons 14 cwts. 0 qrs. in 1933.

TABLE No. I.

Shows the foodstuffs arriving coastwise at the Port by steamers plying between Dundee and the Ports of London, Hull, Liverpool, Aberdeen, Newcastle, Belfast, Southampton, Leith, etc.

				Tons.	Cwts.	Qrs.
Baking Powder	...	...	...	5	16	0
Bacon and Ham	...	...	...	2	19	0
Biscuits	...	...	...	148	15	1
Bran	...	...	...	176	0	0
Butter	...	...	...	231	15	3
Cereals	...	...	...	429	17	2
Cheese	...	...	...	380	16	2
Christmas Puddings	...	...	...	0	4	0
Cordials, Cider &c.	...	...	...	0	17	3
Cocoa and Cocoa Beans	...	...	...	92	14	0
Cocoa Butter	...	...	...	16	5	1
Cocoanuts, Coconut Stearine, and						
Desiccated Coconut	..	...	...	45	1	1
Coconut Oil	...	...	...	21	2	3
Coffee	...	...	...	42	4	1
Confectionery	...	...	...	717	19	1
Bean Flour	...	...	...	4	0	0
Cream (Tinned)	...	...	...	0	0	2
Cream of Tartar	...	...	...	27	12	2
Custard Powder	...	...	...	16	11	3
Edible Seaweed	...	...	...	0	2	2
Eggs	...	...	...	10	19	0
Eggs (Liquid and Dried)	...	...	...	0	2	1
Fish (Salted Herrings)	...	...	...	143	0	2
Fish (Dried)	...	...	...	5	9	1
Fish (Tinned)	...	...	...	200	17	1
Flour	...	...	...	7,998	17	2
Fruit	...	...	...	935	15	1
Fruit (Dried)	...	...	...	405	5	0
Fruit (Pulp)	...	...	...	35	10	1
Fruit (Tinned)	...	...	...	512	17	3
Glucose	...	...	...	647	15	0
Ground Almonds &c.	...	...	...	0	12	0
Jelly Crystals	...	...	...	0	2	0
Lard and Lard Compound	...	...	...	683	1	3

					Tons.	Cwts.	Qrs.
Macaroni	...	...	...	...	0	18	1
Margarine	...	...	...	...	1,534	3	3
Meat Extract	...	...	...	...	55	8	3
Meat (Tinned)	...	...	...	...	189	9	0
Meat (Chilled, Pork &c.)	...	...	...	...	2	17	3
Milk (Dried)	...	...	...	...	1	15	0
Milk (Tinned)	...	...	...	...	256	16	2
Nuts	...	...	...	...	30	13	0
Nut Oil	...	...	...	...	3	6	0
Peas, Beans, &c.	...	...	...	...	81	1	2
Honey, Jams &c.	...	...	...	...	1	10	0
Pickles, Spices, Condiments and							
Sauces	...	...	...	...	59	4	1
Preserves	...	...	...	...	216	13	1
Rice	...	...	...	...	109	15	2
Sago and Semolina	...	...	...	...	8	5	1
Suet	...	...	...	...	0	2	2
Salt	...	...	...	...	25	5	3
Sugar	...	...	...	...	724	18	2
Syrup	...	...	...	...	592	7	2
Tapioca	...	...	...	...	58	5	3
Tinned Soup	...	...	...	...	3	5	3
Treacle	...	...	...	...	451	19	2
Vegetables	...	...	...	...	493	12	1
Vegetables (Tinned)	...	...	...	...	33	4	2
Vinegar	...	...	...	...	3	4	3
					18,679	5	0

TABLE No. II.

Shows the amount and kind of foods arriving direct from abroad.

					Tons.	Cwts.	Qrs.
Biscuits	...	...	...	...	1	9	0
Bran	...	...	...	...	200	0	0
Butter	...	...	...	...	55	6	0
Cereals	...	...	...	...	192	17	2
Cheese	...	...	...	...	241	0	2
Cocoa	...	...	...	...	1	7	0
Cocoanuts	...	...	...	...	43	5	1
Cocoa Butter	...	...	...	...	51	4	0
Confectionery	...	...	...	...	0	15	0
Corn Flour	...	...	...	...	5	0	0
Flour	...	...	...	...	4,966	16	3
Fruit	...	...	...	...	21	14	1
Fruit Dried	...	...	...	...	3	15	1
Fruit (Pulp)	...	...	...	...	120	9	3
Fruit (Tinned)	...	...	...	...	89	8	2
Glucose	...	...	...	...	572	12	0
Ground Nut Oil	...	...	...	...	2	12	0

	Tons.	Cwts.	Qrs.
Lard	15	18	0
Macaroni	7	10	2
Margarine	4	16	0
Meat (Tinned)	58	12	3
Milk (Dried)	3	2	0
Milk (Tinned)	429	4	2
Mineral Waters, Cordials &c. ...	3	2	0
Peas, Beans, &c.	89	3	0
Pickles, Spices, &c.	5	10	3
Preserves	0	4	1
Rice	46	13	3
Salt	25	0	0
Semolina	7	0	0
Sugar	24,567	12	2
Vegetables	624	9	0
Vegetables (Tinned)	16	15	1
	32,474	7	0

No conditions were evident to justify the retention of any of the foodstuffs arriving by waterway.

Fish Inspection at the Fish Market, Carolina Port.

No seizures of fish arriving at the Port took place during the year, and the premises gave rise to no complaints.

The Public Health (Meat) Regulations (Scotland), 1932.

At the end of the year there was no registration in force in terms of Article 15 of the above Regulations—the sales from vans of meat and meat food products being a subsidiary line in connection with shops possessing ample storage accommodation.

Public Slaughter-Houses and Dead Meat Market.

The animals slaughtered and the amount of meat found to be unfit for human consumption and condemned at the Public Slaughter Houses are as undernoted. The figures are supplied by the Superintendent of Markets and Slaughter Houses.

Class of Animals	Number of Animals.			Weight (in lbs.) of condemned meat and offals.
	Slaughtered.	Wholly Condemned.	Partially Condemned.	
Cattle,	15,071	280	4,114	263,791
Sheep,	27,630	36	1,595	3,167
Pigs,	5,071	25	382	6,214

There are no private slaughter houses within the City.

Food Inspection (Shops, Stalls, Barrows, etc.).

On 78 occasions it was necessary to seize food as unfit for human consumption. The undernoted table indicates the nature and quantities.

ARTICLES OF FOOD SEIZED.

ARTICLES.	WHERE SEIZED.	QUANTITIES OR WEIGHTS.				REASONS FOR SEIZURE.
		Tons.	Cwts.	Qrs.	Lbs.	
Pork and Beans (tinned) ...	Shops, or stalls, or barrows on streets, or food or wholesale stores, or railway stations.	0	0	0	26	Decomposition, etc.
Spiced Ham		0	8	3	7	
Mutton (tinned)		0	2	0	4	
Milk (tinned)		0	0	3	16	
Beef (tinned)		0	10	2	11	
Fruit (tinned)		2	16	2	7	
Eggs (tinned)		0	1	0	27	
Jellied Veal, etc. (tinned)		0	4	0	13	
Chicken and Ham Roll, etc.		0	2	1	19	
Fish (tinned)		0	2	2	0	
Tongue (tinned)		0	1	3	12	
Vegetables (tinned) ...		0	2	2	9	
Peas, Beans, Tomatoes etc. (tinned)		0	5	0	26	
Galantine (tinned) ...		0	0	0	18	
Vegetables		0	13	3	20	
Luncheon Meat		0	1	2	21	
Meat Paste		0	1	0	2	
Soup (tinned)		0	0	0	12	
Tomato Puree		0	2	3	16	
Rabbit (tinned)		0	0	1	12	
Fruit Pulp (tinned) ...		0	0	0	14	
Miscellaneous		0	0	0	4	

It will be observed from the preceding table that the food-stuffs found unfit for human consumption are principally tinned products. This does not infer that food which has been so prepared and packed is more liable to contamination than the untinned variety; the fact is, tinned foods, from the time they leave the packer until they arrive in the shop of the retailer, pass through many different channels, each providing its own opportunity for damage to the receptacles; should this occur, as it often does, air is admitted and putrefactive action begins. The wholesalers are fully aware of possible consequences of food within defective containers causing serious illness to anyone partaking of it, and to prevent such contingencies arising they frequently cause their stocks to be examined for the presence of blown, damaged, and other tins to which suspicion is attached.

The premises where foods are prepared or stored are regularly inspected and receive a considerable proportion of the inspectors time in this direction. Throughout the year 4,957 visits

were paid to all classes of retail shops where food is sold, more frequent attention being given to butchers, fishmongers, and shops where food is cooked or prepared. On a number of occasions it was necessary to direct the occupiers' attention to the condition of their backshops, with emphasis that thorough cleanliness in backshops was equally as important as the fine appearance required for the portion frequented by customers. In all instances, however, cleansing, painting and limewashing were carried out without cavil.

At one small shop in the north end, following a complaint made to the Department regarding the condition of the premises, investigation showed that the occupier was physically unfitted to carry on the business of a shopkeeper and the aid of relatives was invoked. As a result a miscellaneous stock of confectionery and groceries were disposed of at the Cleansing Department destructor.

Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928, Etc.

It is necessary, in terms of Orders made under the Merchandise Marks Act, 1926, for all foreign produce specified in the Orders to be marked indelibly and in a conspicuous manner, showing the country of origin, and for that purpose 654 inspectional visits were made.

We find that the food to which most attention has to be given is tomatoes. Very often the foreign product has no indicative card as required, or the card is so placed as to be wholly overshadowed by some other bearing a more attractive inscription.

On the whole, the inspectors' warnings were immediately given effect to; but, if the subterfuge practiced is to persist, it may be necessary to adopt more drastic action to protect the public and prevent, what is undoubtedly, fraudulent dealing.

Since the coming into force of the Milk and Dairies (Scotland) Order, 1934, which revoked the Milk and Dairies (Scotland) Order, 1925, in which restrictions were imposed under Article 12, forbidding the use of vessels (including bottles used as milk containers) belonging to another person without the consent of the owner, certain difficulties have arisen. A number of unscrupulous milk purveyors are using bottles belonging to other persons, for the retailing of milk. Two of the larger companies within the city looked upon the matter seriously and in an endeavour to stop the habit advertised in the local press that the use of their bottles

by unauthorised persons was prohibited; but notwithstanding, the practice continued and our aid was sought. With their difficulty we had some sympathy, but it was mainly from the public health point of view that action was taken, as in our opinion, the necessary facilities for the proper cleansing and sterilisation of these containers do not exist within the average premises of retail purveyors of milk. To act as a deterrent, the particulars of successful court proceedings in a case of a similar nature in another area were prepared in the form of a circular and copies issued to the members of the dairy trade. The warning, although not unheeded, did not have the result desired, and it was necessary to present information of a glaring case to the Board of Trade with a view to statutory proceedings. In due course the culprit appeared before the court and after evidence was heard the Sheriff held that a contravention of Sections 2 (1) d, and (2), of the Merchandise Marks Act, 1887, had been proved. A fine of £3 was inflicted on the accused. The case was reported in the columns of the local press, and this, we hoped would act as a warning. We regret to learn, however, that such usage has not altogether ceased, and it may be necessary to institute further court proceedings in an effort to mitigate this offence.

The premises of the Dundee Ice and Cold Storage Co., Ltd., situated in Trades Lane, are the only premises within this area registered in terms of Art. 4 (1) of the 1928 Act, and Art. 7, Agricultural Produce (Grading and Marking) Eggs (Scotland) Regulations, 1929.

Rag Flock Acts, 1911-1928.

During the year seven samples of Rag Flock were procured at bedding factories, etc. These samples were taken for the purpose of ascertaining by analysis the amount of chlorine each contained, thereby indicating whether or not the flock had been suitably prepared and properly cleansed.

The result of the analysis of six of the samples showed that they came within the prescribed figure of 30 parts chlorine per 100,000 parts flock, as follows:—

One sample yielded 3.30 parts.

Two samples each yielded 5.00 parts.

One sample yielded 6.60 parts.

One sample yielded 6.66 parts.

One sample yielded 20.00 parts.

The seventh sample contained 50 parts chlorine in excess. The matter was taken up with the manufacturers and the Public Health Authority of the district in which the business was situated. Investigations revealed that the rag washing plant had been out of order, but was now repaired. Advice was given to have periodical analysis of the flock made in their own interests, and at the same time a warning issued that similar results would mean the presentation of the facts to the Crown Procurator Fiscal with a view to prosecution.

The Public Health (Preservatives, Etc., in Food) Regulations (Scotland) 1925 to 1927.

MINCE.—27 samples (20 official and 7 test) were purchased throughout the year, of which 6 official and 2 test were on analysis found to contain added preservative in the form of sulphur dioxide in excess, contrary to the terms of the Regulations.

All six cases relating to official samples were reported for prosecution, the results of which were as follows:—

Two were each fined £1.

Two were each fined £1 10s, and

Two were each fined £2.

SAUSAGES.—26 samples (17 official and 9 test) of Sausages (including Lorne Sausage) were submitted for analysis. 24 samples (16 official and 8 test) were “Genuine.”

One official sample contained added preservative in excess of that allowed by statute, and court proceedings were taken against the seller, a fine of £1 10s resulting.

The two test samples of Mince and one of Sausages reported as adulterated were in each case followed by the purchase of official samples—the latter also were reported adulterated and are amongst the foregoing cases dealt with in court.

In a former Report it was stated that all cases in which preservative is discovered to be in excess of that allowed by statute would be reported for prosecution. The position in that respect is unchanged.

There is no necessity for mistakes to occur. Manufacturers of preservative materials give plentiful advice as to their use; too often do we hear that an employee is the culprit.

Food and Drugs (Adulteration) Act, 1928.

Undernoted I give a statement of the number of samples purchased under these Acts during the last ten years :—

		Certified to be		
		Purchased.	Genuine.	Adulterated.
1926	...	666	645	21
1927	...	675	640	35
1928	...	669	637	32
1929	...	674	630	44
1930	...	635	600	35
1931	...	654	618	36
1932	...	637	606	31
1933	...	638	611	27
1934	...	603	583	20
1935	...	632	607	25

SYNOPSIS OF THE SAMPLES PURCHASED THIS YEAR :—

I.—Samples taken in the ordinary course, with a view of following up by prosecution, if necessary, should adulteration be discovered.

				Certified to be		
				Purchased.	Genuine.	Adulterated.
Sweet Milk	...	...	...	175	167	8
Do.	(Pasteurised)	...	...	4	4	—
Do.	(Sterilised)	...	...	6	6	—
Do.	(Certified)	...	...	7	7	—
Do.	(Grade A.T.T.)	...	...	4	4	—
Margarine	...	...	...	9	9	—
Coffee	...	...	...	7	7	—
Whole Rice	...	...	...	9	9	—
Ground Rice	...	...	...	5	5	—
Ground Cinnamon	...	...	...	2	2	—
Lard and Dripping	...	...	...	2	2	—
Sausages	...	...	...	16	15	1
Lorne Sausage	...	...	...	1	1	—
Pot Barley	...	...	...	1	1	—
Mince	...	...	...	20	14	6
Pepper	...	...	...	11	11	—
Cream of Tartar	...	...	...	11	11	—
Ground Ginger	...	...	...	1	1	—
Tapioca	...	...	...	1	1	—
Butter (Salt or Fresh)	...	...	...	11	11	—
Sago	...	...	...	1	1	—
Beef Suet	...	...	...	2	2	—
Total				306	291	15

11.—The following samples were taken in terms of Section 5 (1) (c) of the 1928 Act :—

	Taken	Genuine	Adulterated
Sweet or Fresh Butter	6	6	0

III.—The undernoted “ test ” samples were purchased or taken :—

	Purchased or Taken	Certified to be Genuine	Adulterated
Sweet Milk	20	19	1
Do. (Grade A T.T.) ...	8	6	2
Do. (Certified)	1	1	—
Do. (Pasteurised)	2	2	—
Cream (Tinned),	1	1	—
Milk (Tinned)	24	24	—
Tapioca	9	9	—
Margarine	24	24	—
Coffee and Coffee Essence ...	9	9	—
Whole Rice	13	13	—
Ground Cinnamon	12	12	—
Corn Flour	2	2	—
Sago	6	6	—
Vinegar	1	1	—
Pepper	23	23	—
Pot Barley	10	10	—
Cream of Tartar	17	16	1
Ground Ginger	13	13	—
Baking Soda	5	5	—
Ground Rice	11	11	—
Flour	7	7	—
Oatmeal	4	4	—
Butter (Salt and Fresh) ...	19	19	—
Lard and Dripping	5	5	—
Syrup	1	1	—
Fish (Tinned)	3	3	—
Mince	7	5	2
Sausages	9	8	1
Honey	1	1	—
Meat Paste, etc.,	3	3	—
Mixed Spice	1	1	—
Lemon Curd	2	2	—
Tomatoes (Tinned)	2	2	—
Cocoa	1	1	—
Custard Powder	2	2	—
Mustard	3	3	—
Jam	3	3	—
Cheese	4	4	—
Almond Oil	2	2	—
Dried Fruit	3	3	—
Olive Oil	3	3	—
Glycerine	1	1	—
Castor Oil	3	3	—
Pickles	1	1	—
Table Jelly	2	2	—

	Purchased or Taken	Certified to be Genuine	Adulterated
Camphorated Oil	4	3	1
Borax	1	1	—
Boracic Acid	1	1	—
Aerated Water	2	2	—
Baking Powder	2	2	—
Pharmaceutical Preparations, etc	7	5	2
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Total	320	310	10
Add Table I.	306	291	15
Add Table II.	6	6	—
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Total	632	607	25

With a population of 178,157 this works out to 3.54 samples for every 1,000 persons, as against 3.40 last year.

The average milk fat of the samples taken each month (other than those taken at Institutions) was as follows :—

	No. of Samples Purchased.	Average Fat.
January	23	3.38
February	15	3.50
March	16	3.49
April	17	3.29
May	14	3.65
June	16	3.65
July	17	3.64
August	15	3.80
September	16	3.72
October	16	3.71
November	15	3.89
December	16	3.45
<hr/>		<hr/>
	196	3.59

The lowest milk fat recorded this year in **official samples** was 2.50 per cent. and the highest 4.62 per cent. The number of samples with milk fat below 3 per cent. was 7, and the number of samples with milk fat of 4 per cent. and over was 33.

Test samples of milk as supplied to King's Cross Hospital, the Infant Hospital, Armitstead Convalescent Home and Ashludie Sanatorium were submitted on 28 occasions, and the results as declared by the City Analyst were as follows :—

King's Cross Hospital :—

20 Samples of Sweet Milk averaged 3.93 per cent. of fat.

The highest fat content was 4.48 per cent. and the lowest 3.22 per cent. One of the samples was deficient in Non-Fatty Solids to the extent of 0.28 per cent.

Infant Hospital, Broughty Ferry :—

- 2 Samples of Grade "A" T.T. Milk were tested and reported to have a fat content of 4.00 per cent. and 4.60 per cent. respectively.

Armitstead Convalescent Home :—

- 2 Samples of Certified Milk contained 4.30 and 4.31 per cent. of fat respectively.

Ashludie Sanatorium :—

- 4 Samples of Grade "A" T.T. Milk contained 3.80, 3.78, 3.50 and 3.41 per cent. of Butter Fat. One sample thus did not conform to the standard of 3.50 per cent. laid down in The Milk (Special Designations) Order (Scotland) 1930.

Milk Supply for Schools :—

- 3 Samples of Grade "A" T.T. Milk as supplied to schools were analysed and reported to contain 4.80, 4.33 and 3.46 per cent. milk fat respectively. The sample which did not come up to the necessary figure of 3.50 per cent. fat was received at this Department in a bottle already opened, and therefore we could not look upon the deficiency as one to which we could officially take action. At the same time the Producer's attention was drawn to the matter.

Eight **Official** samples of Sweet Milk did not come up to the standards necessary—five in connection with the butter fat content, one the non-fatty solids content, and in two cases neither butter fat or non-fatty solids reached the required 3 per cent. and 8.50 per cent. respectively.

Court proceedings were instituted in respect of two of these cases and fines amounting each to £1 were inflicted. In two cases warnings were deemed sufficient. In one case where the non-fatty solids content was reported as 8.10 per cent. the City Analyst also applied the Freezing Test, and as the sample corresponded with the highest freezing point of genuine milk no action was taken. The other three samples reported by the analyst as adulterated

were dealt with as follows:—Enquiries showed that in each instance the milk had been obtained from cows of Canadian Friesian breed—a type which is known to be productive of a supply of milk, so far as quantity is concerned, above the average. The question was taken up with a local producer who has considerable experience with this class of beast, and on three occasions he submitted for analysis a number of samples of milk from Canadian Friesian cattle. Of eight samples analysed in February all were below 3% butter fat and four were below the standard of 8.50% non-fatty solids. Early in March a further four samples were reported on—one was low in butter fat and two were low in solids other than fat, while two samples submitted later in March were both below the standard for solids other than fat. This subject had also been causing some concern in an adjoining area, and altogether, the facts were deemed to be of sufficient importance for submission to the Department of Health for Scotland so that a general inquiry might result. To date, however, we have no knowledge that this has been done.

In the case of **test** samples, one of Camphorated Oil was reported as deficient in Camphor to the extent of 79.27 per cent. The matter was taken up with the manufacturers as undoubtedly it was not a case of interference on the part of the retailer, the sample being in a small bottle sold from an attractively arranged carton containing a number of similar bottles. As a result, all the stock in the area was withdrawn from sale.

A Sample of Liquid Paraffin did not conform to the B.P. Standard. As it had been supplied to an institution within the Local Authority's jurisdiction the matter was reported to the officials concerned for them to make further enquiries.

A Test Sample of Cream of Tartar was found to contain 7.61 per cent. of Tartaric Acid and 2.67 per cent. of wheat starch. The official sample following was reported genuine.

A Sample of Iodine also came under the official ban, containing 1.274 per cent. of Free Iodine as against the recognised figure of 1.50 per cent. Apparently the supply had been in the possession of the seller for over a year, with the result that evaporation (through the cork) had taken place. In view of this, I am of opinion, it should be compulsory for manufacturers of this class of goods to ensure that such evaporation does not take place, by thoroughly sealing the bottles with corks covered with some impervious material before dispatching them for sale to the retailers.

Details concerning the samples of sausages and mince, shown in Tables (I.) and (II.) as being adulterated, will be found in the part of this report headed "The Public Health (Preservatives, Etc., in Food) Regulations (Scotland), 1925 to 1927."

Margarine, Etc.—290 inspections were made to the various shops or premises in the City where Margarine, Margarine Cheese, or Milk Blended Butter are offered for sale.

Wholesale Dealers.—At the end of the year the premises registered where the business of a Wholesale Dealer in Margarine, Margarine Cheese, or Milk Blended Butter is carried on, numbered 32.

Re-Worked Butter.—Five factories—all duly registered—where by way of trade, butter is blended or re-worked, were found to be suitable and satisfactory. Six official samples of Re-worked butter were procured during the year, all of which were returned by the City Analyst as genuine.

Mr Andrew Dargie, B.Sc., A.I.C., Public Analyst kindly supplies the following interesting figures and particulars:—

"There were 632 samples submitted for examination, of which 25 were either adulterated, deficient, or not conforming to the respective standards or limits.

The average composition of the Milk Supply as deducted from analysis of samples taken under the Food and Drugs Act is as follows:—

Water,	87.62
Total Solids,	12.38
Fat,	3.64
Non-Fatty Solids,	8.74
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	100.00
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Although the average percentage of butter fat is somewhat lower than the maximum figure reached in 1934, the quality of the milk remains at a high standard well above the average for the preceding 20 years.

The distribution frequencies of Butter Fat and Solids-not-Fat are given in the following table:—

Butter Fat %	Frequencies	Solids not Fat %	Frequencies
Up to 2.69	2	Up to 7.99	1
2.70—2.79	1	8.00—8.09	—
2.80—2.89	2	8.10—8.19	2
2.90—2.99	2	8.20—8.29	1
3.00—3.09	7	8.30—8.39	—
3.10—3.19	14	8.40—8.49	—
3.20—3.29	9	8.50—8.59	57
3.30—3.39	17	8.60—8.69	43
3.40—3.49	28	8.70—8.79	38
3.50—3.59	24	8.80—8.89	37
3.60—3.69	22	8.90—8.99	21
3.70—3.79	23	9.00—9.09	21
3.80—3.89	15	9.10—9.19	6
3.90—3.99	12		—
4.00—4.09	18		227
4.10—4.19	8		—
4.20—4.29	6		—
4.30—4.39	9		—
4.40—4.49	3		—
4.50—4.59	2		—
4.60 and over	3		—
	227		

Under the Sale of Milk Regulations 1901, the presumptive minimum limits for butter fat and solids-not-fat are 3.00 per cent. and 8.50 per cent. respectively. Samples containing less are presumed to be not genuine until the contrary is proved. It will be seen from the above table that seven samples contained less than 3.00 per cent. fat, the lowest being 2.50 per cent., which represents a deficiency of 16.6 per cent. on the fat content. In Solids-not-Fat four samples were below the presumptive minimum, the lowest being 7.89 per cent., which is equivalent to the addition of 7 per cent. of "added water."

Altogether there are nine samples deficient in either Fat or Solids-not-Fat or in both constituents. The highest fat was 4.80 per cent. One Grade "A" Milk contained 3.11 per cent. of

butter fat and one Grade "A" T.T. 3.46 per cent., whereas they should have contained a minimum of 3.50.

Butter and Margarine.—30 samples of Butter, 6 Re-worked Butters and 33 of Margarine were examined. They were found to be genuine and conformed to the Preservatives in Food Regulations. The amount of water present in the Butters ranged from 11.62 to 15.99 per cent., and in the Margarines from 10.80 per cent. to 15.81 per cent. The maximum amount permitted is 16.00 per cent., so that all the samples conformed, although three Butters contained over 15.90 per cent. of water.

The average was 14.63 per cent. for Butter and 13.94 per cent. for the Margarines. The distribution frequency is as follows:—

Water per cent.	Butter	Margarine
10.00—10.99	—	1
11.00—11.99	1	1
12.00—12.99	2	5
13.00—13.99	4	6
14.00—14.99	13	17
15.00—15.99	16	3
	—	—
	<u>36</u>	<u>33</u>

Spices.—White Pepper 34, Cinnamon 14, Ground Ginger 14, total of 62. All the Spices were normal in composition and were practically free from sand and silicious matter. The average percentage of mineral matter was 0.93 for the White Pepper; 4.43 for the Cinnamon and 3.76 for the Ground Ginger. The Ground Ginger also conformed to the Preservatives in Food Order.

Whole Rice and Pot Barley.—There were 22 samples of Whole Rice and 11 of Pot Barley submitted for examination, particularly for Talc facing. The Pot Barley samples were entirely free and the amounts in the Whole Rice all showed less than 0.40 per cent. of Talc. Eight of the Whole Rice were free from facing. All the samples, therefore, conformed to the arbitrary maximum of 0.50 per cent. of Talc facing.

Condensed Milk.—Two Full Cream Sweetened and 22 Skimmed Sweetened Condensed Milks were examined and found to conform to the Condensed Milk Regulations. The Full Cream samples contained 9.42 and 9.67 per cent. of Milk Fat and 33.88 and 33.44 per cent. respectively of Total Milk Solids.

In the Skimmed Condensed Milks the proportion of Milk Fat ranged from a minimum of 0.14 to a maximum of 0.54 per cent., with an average of 0.29 per cent. There are no statutory standards or limits for Butter Fat in this article. The Total Milk Solids ranged from 26.23 to 30.33 per cent., the average being 28.22 per cent.; the minimum standard defined in the Regulations is 26.00 per cent. of Total Milk Solids.

Cream of Tartar.—Twenty-eight samples were submitted for examination and with one exception showed a high degree of purity. The single exception was purchased as a test sample and found to be adulterated. It contained the parts as under:—

Cream of Tartar	89.72
Tartaric Acid	7.61
Wheat Starch	2.67
	<hr/>
	100.00
	<hr/> <hr/>

Mince and Sausages.—27 samples of Mince and 26 of Sausages were examined principally for the presence of preservatives. Under the Preservatives in Food Regulations, sausages may contain up to 450 parts of sulphur dioxide per million parts, but preservative is only permitted in mince during the summer months June to September. At other times of the year it is a contravention to have preservative present in mince. There were eight contraventions in respect of mince, six of which were in the prohibited period and two were for an excess in June and August respectively. There were two contraventions in respect of sausages; one test sample contained 748 and one official sample contained 608 parts sulphur dioxide per million parts sample.

The frequency distribution is given in the following table:—

Sulphur Dioxide			
Parts per Million		Mince	Sausages
Absent		11	1
Up to 99 parts		7	5
100—199 „		1	7
200—299 „		3	3
300—399 „		—	5
400—450 „		1	3
450—499 „		—	—

500—599	„	.....	—	.....	—
600—699	„	.....	1	.....	1
700 and over.....			3	.....	1
			—		—
			27		26
			<u> </u>		<u> </u>

Oils.

Castor Oil	3
Almond Oil	2
Camphorated Oil	4
Olive Oil	3
Cod Liver Oil Emulsion	1
	—
	13
	<u> </u>

All these samples were genuine with the exception of a Camphorated Oil which contained only 3.94 W/W of Camphor, being 15.06 W/W below the lower British Pharmacopoeia limit. This represents a deficiency of 79.27 per cent. of Camphor.

Jam and Jellies.—Three samples were examined and found to contain over 68.50 per cent. of Soluble Solids, the standard adopted by the Food Manufacturers' Federation. The amounts of Insoluble Solids indicated a fruit content above the minimum required for a Full Fruit Standard Jam. The Jams also conformed to the Preservatives Regulations.

Medicaments.—These include three Iodine Paints, Borax, Boracic Acid, Epsom Salts, Liquid Paraffin, Glycerine and Seidlitz Powder.

One of the Iodine Paints contained only 0.226 per cent. of Free Iodine, whereas an Iodine Paint should contain not less than 1.50 per cent. of Free Iodine. The deficiency in Iodine is 85 per cent.

The Liquid Paraffin did not conform to the British Pharmacopoeia Standards, the specific gravity being 0.874 as against the B.P. minimum 0.880. The viscosity (Redwood) was 125 seconds, whereas it should have taken 260 seconds to flow from a Redwood Viscometer.

Miscellaneous articles included 48 Starchy Foods (Ground Rice 16, Tapioca 10, Sago 7, Flour 7, Oatmeal 4, Custard Powder 2, Corn Flour 2), Lard, Suet, Dripping 9; Baking Soda 5; Baking Powder 2; Coffee 14; Coffee Essence 2; Aerated Water 2; Cheese 4; Mustard 3; Tinned Tomatoes 2; Lemon Curd 2; Meats and Pastes, Sardines 6; and Syrup, Honey, Malt Vinegar, Cocoa, etc. 12.

These were found to be correct in all respects.

Rag Flock Acts.—7 Rag Flocks were examined and with one exception were found to conform to the standards laid down in the Rag Flock Acts, 1911 and 1928. The sample which did not conform contained Soluble Chlorine in the form of Chlorides to the extent of 80 parts per 100,000 of Rag Flock, being 50 parts in excess of standard."

Milk for Bacteriological Examination.

Samples were purchased or taken for Bacteriological examination as follows:—

Sweet Milk	.....	56
„ (Pasteurised)	.....	12
„ (Grade A. T.T.)	.....	6
„ (Certified)	.....	5
		<hr/>
		79

These were submitted to Prof. W. J. Tulloch at the University College, the duly appointed Bacteriologist.

The result of the examinations will be found fully dealt with by the Medical Officer of Health in his Report for the year.

Burial Grounds.

The following interments were made at the undernoted Burial Grounds within the Burgh during the year:—

Eastern Necropolis	... ..	1,257
Western Necropolis	... ..	961
Western Cemetery (Perth Road)	... ..	183
Barnhill Cemetery	... ..	189
Parish Church Burying-Ground (Broughty Ferry)	...	5
Constitution Road Burying Ground	... ..	1
St. Luke's Episcopal Church, Downfield	... ..	—
New Mains Cemetery	... ..	8
Old Mains Cemetery	... ..	—
		<hr/>
Total	... ..	2,604

No material change has taken place at the Burial Grounds within the city since last reported. They have been well and satisfactorily maintained.

Interments.

Section 69 of The Public Health (Scotland) Act, 1897

54 applications were made for the burials of persons declared to be destitute or whose friends were not in a position to defray funeral expenses. 48 of these were granted, and in 6 cases other arrangements were made for the burial. Of the 48 persons interred at the expense of the Local Authority, 5 were adults, 29 were juveniles, and the remaining 14 were still-born children. The total cost to the Local Authority amounted to £76 os 1d, and of this sum only £2 9s was recovered from relatives or through the medium of Insurance Companies.

Smoke Nuisance.

An increase of trade in the city's staple industry is generally reflected in the greater nuisance caused by excessive emission of black smoke from industrial chimneys; but this year, although industrial conditions are brighter it was only necessary on 13 occasions for special observations of offending chimneys to be made. They resulted as follows:—

Black Smoke was emitted from				0 to 10 minutes in 1 case;
Do.	Do.	Do.	11 to 15 minutes in 3 cases;	
Do.	Do.	Do.	16 to 20 minutes in 2 cases;	
Do.	Do.	Do.	21 to 25 minutes in 2 cases;	
Do.	Do.	Do.	26 to 30 minutes in 3 cases;	
Do.	Do.	Do.	for 31 & over minutes in 2 cases.	

12 Warning Letters were issued, and immediate improvements were effected.

Each year sees further progress being made towards the elimination of this type of offence. Throughout the period under review a number of firms in the city took steps to minimise and prevent, so far as possible, this unnecessary pollution of the atmosphere. Electrical power was introduced in certain instances, resulting in the dismantling of the former boilers and furnaces; while at two factories smoke eliminating apparatus was installed with satisfactory results. Fittings of the latter nature have been, for a number of years, greatly advertised as a means for consuming smoke before entrance to the chimney, and while we believe such contrivances are capable of much good, it is only by intelligent manipulation that success will be assured.

Shops Acts.

To the retail shops within the city, of which there were 3,571 at our last census, 6,291 visits of inspection were made; street patrol duty was undertaken when deemed necessary.

In the course of that work 130 contraventions were discovered, many of which were in connection with the non-exhibition of notices required by statute. 13 cases, 12 of which were in respect of the sale of goods outwith permitted hours, were reported to the Procurator Fiscal, but only in 7 instances were court proceedings instituted; all the accused pled guilty and were fined 15/- each. The other case reported was a contravention of Sections 1(1) and 1(2) of the Act of 1912 — failing to give an assistant the statutory half-holiday and not exhibiting a notice stating which day the shop assistant would not be employed after half-past one o'clock; for the two offences a fine of 15/- was imposed.

Shopkeepers generally are complying favourably with the various enactments covering the sale of goods by retail. It is against the mixed trader, particularly in shops where confectionery is also sold that the majority of complaints arise.

With the advent of the Act of 1934 the conditions affecting young persons employed in sales shops, retail and wholesale, have been greatly changed and improved. The former permissible hours of 74, including meal times, were reduced to 52 working hours; the latter will be still further reduced to 48 working hours on 27th December, 1936, a transitional period of two years has been allowed at the longer hours to enable shopkeepers, we presume, to become accustomed to the new conditions. There are special provisions in respect of assistants employed in the catering trade and in premises where the business of the sale of supplies or accessories for aircraft, motor vehicles and cycles is carried on. Also embraced within this Act are conditions regarding the arrangements for the health and comfort of shop workers—including provision of sanitary conveniences and washing facilities, ventilation, temperature and lighting, and facilities for taking meals.

The question of the carrying out of the provisions of this Act came before the Local Authority during the year, and the responsibility was placed upon the Sanitary Department.

To enable shopkeepers to become acquainted with the new conditions, a memorandum was prepared embracing the main re-

quirements of the Act, and a copy was served upon every shop-keeper within the city.

During the year two petitions for earlier closing were dealt with. One in connection with the trades of tailor and gent's outfitter failed by a narrow margin to obtain the majority necessary for a *prima facie* case. The other, in respect of the retail coal dealers, had a clear majority of the requisite percentage; but at the end of the year the proceedings required by Law had not been finally completed.

Places for Public Refreshment.—Numbered 257; these were inspected regularly and all complied with the bye-laws thereanent.

Theatres, Cinemas and Dance Halls.

Inspections numbering 232 were made to the above buildings during the year to ensure that the means for ventilation were adequate, the sanitary conveniences maintained in a proper manner, and general cleanliness was up to the required standard. Licenses are granted by the Local Authority, and on receipt of each application this Department is advised so that any necessary works can be arranged for prior to the license being granted. Only in one instance was the work required to put the hall into a fit condition not carried out, and, as a result, the license was refused.

Offensive Trades.

Trades falling within this category are carried on in premises situated as follows :—

Old Air Station, Stannergate Road—Tallow Melter.

At Public Slaughter-Houses, East Dock Street (Private)—Gut Cleaner (1) and Hide Factors (2).

At Public Slaughter-Houses, East Dock Street (Corporation)
—(a) Slaughterer of Cattle; (b) Tripe Cleaner; (c) Tallow Melter; and (d) Blood Boiler.

These businesses have been conducted in a satisfactory manner, and no complaints arose in connection therewith.

Rats and Mice (Destruction) Act, 1919.

Early in the year, consideration was given by the Public Health Committee to the Department of Agriculture's proposal for an extensive campaign against rats during the first week of

April, and it was agreed that no special campaign in this direction be undertaken. Special endeavours, however, were made by the City Engineer to diminish the rat population within the sewers; 465 poison baits were laid down, the majority of which were taken, and although the exact number of dead rats found was not recorded, we may assume that the rat mortality rate within our sewerage system was definitely increased that week.

During the demolition of some old properties in the centre of the city, complaints were received from proprietors and occupiers of adjoining buildings that rats were seen migrating to new quarters. In cases of this description we advise that precautions should be taken to ensure that rodents are confined within the precincts of the old buildings, and special destructive measures carried out before and during demolition operations.

The following cases are illustrative of those dealt with by the Department during the year.

At a modern tenemental property belonging to the Corporation rats had gained access. To eradicate the pest was simple, but the tracing of the source from which they came gave cause for thought as there was no appearance of any likely harbourage within the vicinity. It was eventually discovered that a field drain connected to the sewer had been allowed to remain in the ground, and when this was excised no further trouble arose.

The dump, now discontinued, at Esplanade, Broughty Ferry, was the subject of strong assertions that it was the habitation and breeding ground of rats on a wholesale scale, and poultry keepers in the vicinity alleged that these unwelcome visitors caused them much annoyance and trouble. There being evidence that vermin were in occupation, although not on the scale suggested by the complainers, the question of defestation was taken up with the Superintendent of Cleansing who made arrangements to have the dump gassed by means of pumping "Cyanogas" into the holes and runs each alternate day. As there was ample evidence of infestation at the hen runs also, effective means for extermination there were insisted upon. Evidently, this joint action was successful, as no further complaints were received.

Untrapped drains at a property in the north end of the city afforded an easy access for rats, particularly to an old disused

bakehouse. Deratisation was carried out and thereafter traps provided for the house drains; since then no further complaints have arisen. At another building a plague of mice had as its origin a room on the ground floor used for the housing of birds. Precautionary measures for the keeping of the bird food in closed tins eliminated the trouble.

Musk Rats.—A “stranger in our midst” in the form of a female musk rat was killed in a principal street at Broughty Ferry, by a policeman early one morning. The matter was immediately reported to the Department of Agriculture for Scotland who sent their chief trapper to carry out investigations in the neighbourhood, but no evidence was found that an invasion by these destructive rodents had taken place. It is difficult to surmise from what source this lone straggler arrived; our theory, to which credence might be given is that it came from the upper reaches of the river in the vicinity of the River Earn, where infestation by vermin of this description has been reported.

Port Inspection.

During the year 1935 there was a decrease in the number of ships arriving at the Port—40 from foreign countries and 14 in the case of coasting ships, as compared with the 1934 figures—the respective totals being 340 ships from foreign ports and 720 coasting vessels.

Arrivals from infected foreign ports totalled 118, and of that number 10 came direct, while the remainder called at some other Port in this country prior to reaching Dundee.

The Port Sanitary Officer made 870 visits of inspection to ships visiting the Port.

Cargoes.—The cargoes arriving at this Port from abroad were similar to those in former years. From India — Jute, Gunnies, Tea, Desiccated Cocoanut, Linseed Oilcake and Pig Iron; Mediterranean Ports—Esparto Grass, Phosphate, Pyrites, Cork Shavings, Oilcake, Cotton Seed and Bitter Oranges; Baltic and White Sea Ports—Flax, Pulp, Paper, Slates, Matches, Timber and partly manufactured timber articles; Other Continental Ports—Margarine, Butter, Cheese, Condensed Milk, Fruit Pulp, Vegetables, Flower Bulbs, Shrubs, Fertilizers, Fancy Goods, Steel and Iron Bars, Electric Cables and Oil; North American Ports—

Cheese, Flour, Fruit, Tinned Foods, Pitch, Ochre, Oak and Maple flooring, Pitch Pine Logs and Wire; West Indies—Crude Oil and Sugar; Irish Free State—Beet Pulp for Cattle Feeding; and Sugar direct from Australia.

Nuisances.—Nothing unusual falls to be reported regarding nuisances discovered on ships. These numbered 286, and in all cases were rectified before the vessels left—their nature will be found at the end of this report in tabular form.

Two ships were found to have bug infested forecastles and were fumigated and cleansed. Both ships called again at this port and further inspections found them still free of these troublesome pests.

It is of interest to note that at certain Ports the Sanitary Authorities furnish the Master of the ship with a list of the defects known to exist on his vessel. The production of these lists to the local Port Sanitary Officer is both convenient and informative, and enables him to work in conjunction with the Sanitary Authorities of other Ports in seeing that remedial measures are applied to the defects enumerated.

Certain ships belonging to other countries carry two or three women as cooks or stewardesses, who usually occupy cabins amid-ships. It is to be regretted that none of these ships visiting this Port had water closet accommodation set apart for these female members of the crew. Admittedly, the ships are usually old ones, but separate sanitary conveniences should be provided for each sex.

Deratisation.—Deratisation Exemption Certificates were issued in respect of 36 vessels found on inspection to be reasonably free from rats. Nowadays ships' officers are keen to eradicate these vermin from their vessels, and the necessity to issue printed notices concerning the obligations of masters for the destruction of the rodents is now not so urgent. Deratisation efforts within the area under the jurisdiction of the Harbour Trustees are unremitting in an endeavour to keep the rat population at the sheds, warehouses and other buildings down to a minimum.

The Parrots (Prohibition of Import) Regulations (Scotland), 1930.

The restrictions enforced by the terms of the above Regulations were applied on two occasions when the owners gave written undertakings to keep the birds within the confines of the ship while at this Port.

Total number of Verbal Intimations	303
Total number of Rat Notices issued	37
Number of Visits to Ships	870
Number of Ships from Infected or Suspected Ports (direct)	10
Number of Ships from Infected or Suspected Ports (indirect)	108
Number of Ships from Free Ports (direct)	93
Number of Ships from Free Ports (indirect)	129
Total number of Ships from Foreign Ports	340
Nuisances and defects attended to	286
Forecastles Cleaned	38
Messrooms Cleaned	25
Galleys and Store-rooms Cleaned	36
Accumulations of Food Refuse	11
Choked or Defective W.C.'s	41
Dirty W.C.'s	23
Discharge of Foul Water on Quay	49
Ventilators Obstructed	61
Excessive Smoke Emission from Vessels	2
	— 286

In addition the following work was carried out while the vessels were in Port :—

Fresh Water Tanks Cleaned Out	51
Forecastles Washed or Painted	63
Bathrooms or Wash-Places Painted	17
Galleys Washed or Painted	72
W.C.'s Painted	19

1. Amount of Shipping entering the Port in 1935 :—

	Number	Tonnage
(1) Foreign	340	646,943
(2) Coastwise	720	284,260
Totals	1,060	931,203

2. No. of Vessels subjected to measures of Rat Destruction in 1935 :—

“A.”

No. of Vessels subjected to measures of Rat Destruction ...	14
On Ships*—No. of dead rats recovered	23
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil
On Shore*—No. of rats destroyed (other than on ships)	410
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil

*Species of rat recovered—Common Grey Rat and 4 Black Rats.

“B.”

No. of Vessels fuimgated by SO ₂	Nil
No. of dead rats recovered	Nil
No. of Vessels fumigated by H.C.N.	Nil
No. of dead rats recovered	Nil
No. of Vessels in which poisoning, etc., was employed ...	14
No. of dead rats recovered	23
No. of Deratisation Certificates issued	Nil
No. of Deratisation Exemption Certificates issued	36

3. No. of Vessels (included in (2) above) deratised before discharge of Cargo	Nil
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Section 164 of the Burgh Police (Scotland) Act, 1892.

PROVISION AND RENEWAL OF RAIN WATER SPOUTS AND
DOWNPIPES.

Under the above Section the following work was executed,
viz. :—

Number of Properties where the rain water spouts and conductors have been overhauled, renewed or otherwise repaired.	Lineal feet of new rain water conduct- ing channel rhones or gutter pipes used in the renewing or repairing of the same.	Lineal feet of new rain water conducting or downfall pipes used in the same way at the different proper- ties.
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General Prosecutions.

The prosecutions for the year were as under :—

General Police and Improvement (Scotland) Act, 1862, Clause 354	Preservative in Food (Sausages)	(Mince)	Shops Acts, 1912/1934	Food and Drugs (Adulteration) Act (Milk)
I	I	6	7	2
Bye-Laws Common Pig Stys	Lodging Houses			Merchandise Marks Act, 1887
I	I			I*
Total				
20				

*After authority from H.M. Board of Trade.

Six other cases reported for prosecution in terms of the Shops Acts, 1912/1934 did not appear before the Court, while in one case, under the Bye-Laws for Common Lodging Houses, the proceedings were withdrawn.

Detailed particulars of each are given under the various heads.

I am, Gentlemen,

Your Obedient Servant,

ALEX. A. RUSSELL,

Chief Sanitary Inspector.